EXHIBIT 300

EXHIBIT 4

UNITED STATES DISTRICT COURT WESTERN DISTRICT OF PENNSYLVANIA

In re EQT Corporation Securities Litigation

Master File No. 2:19-cv-00754-MPK Class Action

REPORT ON MARKET EFFICIENCY
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APRIL 2, 2021

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I. SCOPE OF PROJECT AND REPORT

- I was asked by Bernstein Litowitz Berger & Grossmann LLP and Cohen Milstein Sellers & Toll PLLC, Co-Lead Counsel for the Plaintiffs, to determine whether the common stock of EQT Corporation ("EQT" or the "Company") traded in an efficient market during the period from 19 June 2017 through 17 June 2019, inclusive (the "Class Period").
- 2. I was also asked to determine whether Section 10(b), Section 11, Section 12(a)(2), Section 14(a), Section 15, Section 20(a), and Section 20A damages in this matter can be computed for all Class members using a common methodology for each cause of action that is consistent with the Plaintiffs' theory of liability. That is, I was asked to opine on whether:
 - i. There is a common methodology consistent with Plaintiffs' theory of liability for computing damages for all Class members who have claims under Section 10(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and U.S. Securities and Exchange Commission ("SEC") Rule 10b-5 adopted thereunder (collectively, "Section 10(b)").
 - ii. Damages under Section 11 of the Securities Act of 1933 (the "Securities Act") can be computed using a common methodology for all investors who received shares pursuant or traceable to the joint proxy and registration statement that was filed in connection with the acquisition of Rice Energy, Inc. ("Rice Energy") (the "Acquisition").
 - iii. Section 12(a)(2) damages can be computed using a common methodology for all Class members who have claims under Section 12(a)(2) of the Securities Act.
 - iv. Section 14(a) damages can be computed using a common methodology for all Class members who have claims under Section 14(a) of the Exchange Act and SEC Rule 14a-9 (collectively, "Section 14(a)").
 - v. Section 15 damages can be computed using a common methodology for all Class members who have claims under Section 15 of the Securities Act.

- vi. Section 20(a) damages can be computed using a common methodology for all Class members who have claims under Section 20(a) of the Exchange Act.
- vii. Section 20A damages can be computed using a common methodology for all Class members who have claims under Section 20A of the Exchange Act.
- 3. Towards these ends, I analyzed the market for EQT common stock, the price behavior of the stock, and the factors that are generally accepted to be indicative of market efficiency. I examined Company press releases, conference call transcripts, equity analyst reports, news articles, SEC filings, daily prices of the stock, trading volume, the performance of the overall stock market, and the performance of the Company's industry sector, as well as other pertinent data and documents. I also read and considered the contents of the First Amended Complaint for Violations of the Federal Securities Laws, filed 6 December 2019 (the "Complaint"), and the Court's Opinion dated 2 December 2020 (the "Motion to Dismiss Opinion").
- 4. I assessed market efficiency for the Class Period as a whole and also for three subintervals within the Class Period: 1) the pre-Acquisition interval, 19 June 2017 through 12 November 2017 ("Interval-1"), 2) the post-Acquisition pre-Spinoff interval, 13 November 2017 through 12 November 2018 ("Interval-2"), and 3) the post-Spinoff interval, 13 November 2018 through 17 June 2019 ("Interval-3"). Unless otherwise stated herein, my conclusions as to the Class Period apply to all three subintervals.
- 5. To determine whether damages under Exchange Act Section 10(b), Section 14(a), Section 20A, and Section 20(a) and Securities Act Section 11, Section 12(a)(2), and Section 15 in this matter can be computed for all Class members using common methodologies, respectively, that are each consistent with the Plaintiffs' theory of liability, I considered all data and documents reviewed for purposes of assessing market efficiency and also reviewed the relevant statutes.
- 6. Exhibit-1 lists the documents I considered in preparing this report and arriving at the opinions expressed herein.
- 7. This report presents my methodology, findings, and conclusions.
- 8. My work in this matter is ongoing, and I reserve the right to amend, refine, or supplement my analyses and opinions in the event that I become aware of additional information, evidence, arguments, or analyses which bear on my work.

II. CREDENTIALS

- 9. I am an Associate Professor of Finance at Babson College, and the founder and president of Crowninshield Financial Research, Inc., a financial economics consulting firm.
- 10. I hold a Ph.D. in Economics from Yale University, a Master of Philosophy degree in Economics from Yale University, a Master of Arts in Economics from Yale University, and a Bachelor of Arts degree in Economics from Pomona College. I also hold the Chartered Financial Analyst ("CFA") designation, granted by the CFA Institute.
- 11. At Babson College, I have taught undergraduate and MBA-level courses in Capital Markets, Investments, Equity Analysis, Fixed Income Analysis, Financial Management, Risk Management, Quantitative Methods, and Valuation. I have also taught executive courses on investments and corporate financial management for numerous corporations. Other courses I have taught are listed in my *curriculum vitae*, which is attached as Exhibit-2.
- 12. I have held the Chair in Applied Investments at Babson College and served as the Director of the Stephen D. Cutler Investment Management Center, a research and education center dedicated to the study and teaching of investments and capital markets.
- 13. Prior to my joining the faculty at Babson College, I taught finance courses at Boston University. Preceding my academic posts, I was an Economist at the Federal Reserve Bank of Atlanta where my primary responsibilities were to monitor financial markets, analyze proposed regulation, and advise the Bank President in preparation for his participation in meetings of the Federal Open Market Committee the government body responsible for monetary policy in the United States.
- 14. I have published in the field of finance. My finance articles have appeared in the Atlanta Federal Reserve Bank Economic Review, Derivatives Quarterly, Derivatives Weekly, The Engineering Economist, The Journal of Risk, The American Bankruptcy Institute Journal, The Journal of Financial Planning, The Journal of Forensic Economics, Managerial Finance, Risk Management, Primus, and The Review of Quantitative Finance and Accounting (recent article available online and forthcoming in print). I am the author of Finance and Accounting for Project Management, published by the American Management Association. I wrote two chapters in the book The Portable MBA in Finance and Accounting one on corporate financial planning and the other on risk management.

I have presented research at the annual conventions of the American Finance Association, the Academy of Financial Services, the Multinational Finance Society, the Financial Management Association, the Taxpayers Against Fraud Education Fund Conference, and the International Conference on Applied Business Research. I also co-authored papers that have been presented at the Eastern Finance Association meetings, the Midwestern Finance Association meetings, and the Boston Area Finance Symposium. A list of all the publications I authored in the past ten years can be found in my *curriculum vitae*, which is attached as Exhibit-2.

- I have been selected to review papers for numerous finance journals and conferences, and I have reviewed finance textbook manuscripts for Prentice-Hall, Elsevier, Blackwell, and Southwestern Publishing. I have been quoted on matters relating to finance and investments in *The Wall Street Journal*, *The Washington Post*, *The New York Times*, *The Financial Times*, *The Boston Globe*, and *Bloomberg News*, and my research relating to financial analysis and valuation has been discussed in *The Wall Street Journal*, *Bond Buver*, and *Grant's Municipal Bond Observer*.
- 16. I am a member of the American Finance Association, the Financial Management Association, the North American Case Research Association, the National Association of Forensic Economics, the CFA Institute, and the CFA Society Boston. I served as a member of the CFA Society Boston education committee and ethics subcommittee. I also served on the Fixed Income Specialization Examination Committee of the CFA Institute.
- 17. The CFA designation is the premier credential for financial analysts worldwide. In order to receive this credential, applicants must pass a series of three exams covering such topics as economics, equity analysis, financial valuation, business analysis, quantitative methods, investment analysis, portfolio management, risk management, financial accounting, and ethical and professional standards. For over ten years I taught in the Boston University CFA Review Program and the CFA Society Boston Review Program two of the leading review programs that prepared candidates for the CFA exams. In both of these programs, I taught candidates at the most advanced level.
- 18. In addition to my teaching, research, CFA, and academic community responsibilities, I practice extensively as a financial consultant. Past clients include the United States Securities and Exchange Commission, the Internal Revenue Service, the Attorney

- General of the State of Illinois, the National Association of Securities Dealers, and numerous law firms prominent in securities litigation. As a financial consultant, I have conducted analyses and presented opinions related to financial markets, valuation, and damages in more than 120 cases. Exhibit-3 lists my prior testimony appearances over the past four years.
- 19. I am the sole owner of the consulting firm Crowninshield Financial Research, Inc., which receives compensation for the work performed by me and the staff who assist me. My firm is compensated at a rate of \$950 per hour for my work, and a range of lower rates for analysts and other personnel who are assisting me on this case. My compensation is not contingent on my findings, conclusions, or on the outcome of this matter.

III. CONCLUSIONS

- 20. EQT common stock traded in an efficient market over the course of the Class Period. I examined the factors set forth in *Cammer v. Bloom*, 711 F. Supp. 1264, 1286-87 (D.N.J. 1989), and *Krogman v. Sterritt*, 202 F.R.D. 467, 474-78 (N.D. Tex. 2001), which, consistent with financial economic principles and published peer-reviewed empirical research, indicate market efficiency. Courts in the Third Circuit have accepted and applied the factors set forth in *Cammer* and *Krogman* as dispositive indicators of market efficiency. Courts in all other circuits have similarly relied on the *Cammer* and *Krogman* factors as dispositive indicators of market efficiency. EQT stock satisfied all of the *Cammer* and *Krogman* factors throughout the Class Period.
- 21. Statistical analysis examining the empirical behavior of EQT stock proves that there was a cause-and-effect relationship between the release of Company information and movement in EQT's stock price. Event study analysis proved that EQT's stock price responded to Company-specific information, which is the essence of market efficiency. Therefore, EQT stock satisfied the fifth *Cammer* factor by empirically demonstrating market efficiency during the Class Period.

¹ See, e.g., Roofer's Pension Fund v. Papa, No. 16-2805, 2018 WL 3601229, at *22 (D.N.J. July 27, 2018); In re Advance Auto Parts, Inc. Sec. Litig., No. 18-212, 2020 WL 6544637, at *4 (D. Del. Nov. 6, 2020); and Pope v. Navient Corp., No. 17-8373-RBK-AMD, slip op. (D.N.J. Mar. 11, 2021).

- 22. Based on the foregoing, I conclude that the market for EQT stock was efficient over the course of the Class Period.
- 23. Section 10(b), Section 11, Section 12(a)(2), Section 14(a), Section 15, Section 20(a), and Section 20A damages in this matter can each be computed for all Class members using a common methodology for each cause of action that is consistent with the Plaintiffs' theory of liability.

IV. FACTUAL BACKGROUND

A. About the Company

- 24. EQT is a natural gas company that has operations in the Appalachian Basin and throughout Pennsylvania, West Virginia, and Ohio.² For the fiscal year ("FY") 2017, EQT reported operating revenue of \$3.38 billion³ and net income of \$1.51 billion.⁴
- 25. At the start of the Class Period, EQT had three business segments: EQT Production, EQT Gathering, and EQT Transmission.⁵
- 26. The EQT Production segment was in the business of exploration, development, and production of natural gas, natural gas liquids ("NGLs"), and crude oil. EQT Production held 13.5 Tcfe (trillion cubic feet equivalent) of proved reserves across approximately 3.6 million gross acres as of 31 December 2016.⁶ EQT Production's stated strategy was to "maximize shareholder value by maintaining an industry leading cost structure to profitably develop its reserves."
- 27. In the natural gas business, "gathering" refers to the collection of natural gas from wells and transporting the natural gas to transmission pipelines. The EQT Gathering segment

² EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 7.

³ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 17.

⁴ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 36.

⁵ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 8.

⁶ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017, p. 8.

⁷ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017, p. 8; and EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 10.

- was in this business, moving "natural gas from wells and other receipt points to transmission pipelines."8
- 28. EQT Transmission provided transmission and storage services. EQT Transmission's assets transmitted natural gas "to six interstate pipelines and multiple distribution companies."
- 29. The Company provided gathering and transmission services to itself as well as independent third parties across the Appalachian Basin.
- 30. EQT's ownership stake in and control of EQT Gathering and EQT Transmission was through its ownership stake in and control of EQT GP Holdings, LP ("EQGP"), which in turn had an ownership stake in and control of EQT Midstream Partners LP ("EQM"), which in turn owned EQT Gathering and EQT Transmission.¹⁰
- 31. In November of 2017, EQT completed the Acquisition of Rice Energy. The joint press release announcing that EQT would acquire Rice Energy described Rice Energy as "an independent natural gas and oil company focused on the acquisition, exploration and development of natural gas and oil properties in the Appalachian Basin."¹¹
- 32. Following the Acquisition, the Company conducted its business through five business segments: EQT Production, EQM Gathering, EQM Transmission, RMP Gathering, and RMP Water.¹²
- 33. Rice Energy's production business and production assets were merged into EQT Production. With the Acquisition, EQT Production became "the leading natural gas producer in the United States, based on average daily sales volume." EQT Production

⁸ EQT Midstream Partners, LP, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017, p. 6.

⁹ EQT Midstream Partners, LP, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017, p. 12.

¹⁰ As of 31 December 2016, EQT "owned the entire non-economic general partner interest and a 90.1% limited partner interest, in EQGP." EQGP's only cash-generating assets were "26.6% limited partner interest in EQM; …1.8% general partner interest in EQM; and all of EQM's IDRs [Incentive Distribution Rights], which entitle EQGP to receive 48.0% of all incremental cash distributed in a quarter after \$0.5250 has been distributed in respect of each common unit and general partner unit of EQM for that quarter. The Company is the ultimate parent company of EQGP and EQM." (EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, pp. 7 and 90).

¹¹ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," Business Wire, 19 June 2017, 7:55 AM.

¹² EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 7.

¹³ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 7.

- reported that it held 21.4 Tcfe of proved reserves across approximately 4.0 million gross acres as of 31 December 2017.¹⁴
- 34. Post-Acquisition, EQT Gathering and EQT Transmission were renamed EQM Gathering and EQM Transmission.
- 35. EQT's new RMP Gathering segment, which comprised gathering assets and operations obtained in the Acquisition, provided "natural gas gathering services to the Company in the dry gas core of the Marcellus Shale in southwestern Pennsylvania, through Rice Midstream Partners LP (RMP) (NYSE: RMP)" ("RMP"). 15
- 36. EQT's new RMP Water segment provided "water services that support well completion activities and collects and recycles or disposes of flowback and produced water for the Company and third parties in Washington and Greene Counties, Pennsylvania and Belmont County, Ohio." 16
- 37. Consistent with industry organization and description, the Company's various operations were categorized as either upstream business or midstream business. The upstream business was "composed of the natural gas, oil and natural gas liquids development, production and sales and commercial operations." The midstream business was "composed of the separately operated natural gas gathering, transmission and storage, and water services businesses." 18
- 38. In November 2018, EQT separated its midstream businesses from its upstream businesses, creating a stand-alone publicly traded company called Equitrans Midstream Corporation ("Equitrans Midstream") (the "Spinoff"). Subsequent to the Spinoff, EQT consisted of just "its upstream business, which is composed of the natural gas, oil and natural gas liquids development, production and sales and commercial operations of the Company." The other operating segments went to Equitrans Midstream.

 $^{^{14}}$ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 7.

 $^{^{15}}$ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 7.

¹⁶ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, p. 7.

¹⁷ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 8.

¹⁸ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 8.

¹⁹ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 8.

- 39. To effectuate the Spinoff, EQT Corporation shed ownership of 80.1% of Equitrans Midstream in the form of a tax-free stock dividend.²⁰ EQT shareholders retained their original EQT shares, but for each share of EQT they owned they also received 0.80 shares of Equitrans Midstream.^{21,22} EQT planned to sell its 19.9% shareholder stake in Equitrans Midstream over time and use the proceeds to reduce debt.²³
- 40. On 12 November 2018, the last trading day before the Spinoff, EQT's closing stock price was \$34.64 per share.²⁴ At the close the next day, after the Spinoff, EQT's stock price was \$18.56 per share.²⁵ On 12 November 2018, prior to the Spinoff, EQT had a total market capitalization of \$8.81 billion.²⁶ On 13 November 2018, the first day after the Spinoff, EQT's market capitalization was \$4.72 billion.
- 41. On 13 November 2018, the first day of trading after the Spinoff, Equitrans Midstream's stock closed at \$20.89 per share, and summed to \$5.32 billion in the aggregate.²⁷

B. Timeline of Select Events

42. A review of the following events provides context for understanding Plaintiffs' allegations and the Company's experience and condition during the Class Period.

²⁰ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 8; and "EQT Corp Announces Plan to Separate Midstream Business Conference Call," *Thomson Reuters*, conference call, 21 February 2018, p. 3.

²¹ "EQT Completes Separation of Midstream Business, Begins New Chapter as Focused Industry Leader," *Business Wire*, 13 November 2018, 6:30 AM.

²² "EQT did not distribute fractional shares of ETRN common stock in the Distribution. Fractional shares that EQT's shareholders would have otherwise been entitled to receive are being aggregated and sold in the public market by the distribution agent. The aggregate net cash proceeds of these sales will be distributed ratably to those shareholders who would otherwise have been entitled to receive fractional shares, in accordance with the Separation and Distribution Agreement." (EQT Corporation, Form 8-K, filed 13 November 2018, p. 2).

²³ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 8.

²⁴ Stock price data obtained from CRSP.

²⁵ Stock price data obtained from CRSP.

²⁶ Share outstanding data obtained from Company SEC filings.

²⁷ Stock price and shares outstanding data obtained from CRSP.

1. 19 June 2017: EQT Proposes Acquisition of Rice Energy

- 43. On 19 June 2017, before the start of trading, EQT issued a press release titled "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," announcing that EQT had "entered into a definitive merger agreement under which EQT will acquire all of the outstanding shares of Rice common stock for total consideration of approximately \$6.7 billion." The press release explained that EQT would give Rice Energy shareholders 0.37 shares of EQT common stock and \$5.30 in cash in exchange for each share of Rice Energy common stock. In the aggregate, total consideration for Rice Energy summed to \$6.7 billion \$5.4 billion in stock and \$1.3 billion in cash. Following the Acquisition, prior EQT shareholders would own approximately 65% of the combined company, and prior Rice Energy shareholders would own approximately 35%. In addition, the press release detailed that in connection with the Acquisition "EQT will also assume or refinance approximately \$1.5 billion of net debt and preferred equity."
- 44. EQT President and CEO Steve Schlotterbeck was quoted in the press release, stating that the Acquisition of Rice Energy "will provide substantial synergies and make this transaction significantly accretive in the first year."³³
- 45. As of 19 June 2017, the boards of directors of both EQT and Rice Energy had already unanimously approved the transaction.³⁴ However, completion of the transaction was subject to the approval of both EQT and Rice Energy shareholders, as well as regulatory and other closing conditions.³⁵

²⁸ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

²⁹ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

³⁰ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 3.

³¹ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 3.

³² "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

³³ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

³⁴ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

³⁵ "EQT Corporation to Acquire Rice Energy for \$6.7 Billion," *Business Wire*, 19 June 2017, 7:55 AM.

- 46. On the same day, 19 June 2017, the Company held a conference call with investors.³⁶ On the conference call, the Company told analysts and investors, among other things, that:
 - i. Upon completion, the Acquisition would make EQT "the largest natural gas producer in the U.S." ³⁷ and that "the contiguous nature of acquisitions provide tremendous operational and capital synergies as well as providing significant organic growth opportunities for EQM and EQGP."³⁸
 - ii. The decision to acquire Rice Energy was "driven by [EQT's] strategy to significantly improve returns on invested capital and capture capital and operational synergies."³⁹
 - iii. EQT would "capture operational efficiencies through sharing of technical data and best practices, rig allocation, pad sites, water, access roads, et cetera."⁴⁰
 - iv. "There are tremendous operating and capital synergies which are estimated to have a present value of \$2.5 billion" with "operational savings of \$100 million" in the first full year. 41

2. JANA Partners Opposes the Proposed Acquisition of Rice Energy

47. On 5 July 2017, JANA Partners LLC ("JANA"), a fund owning roughly 5% of the outstanding shares of EQT,⁴² sent a letter to EQT's board of directors.⁴³ This letter was publicly disclosed as an exhibit attachment in EQT's Form SC 13D/A filed the same day.⁴⁴ In the letter, JANA expressed that they were "astounded by the news that, rather

³⁶ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017.

³⁷ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 4.

³⁸ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 5.

³⁹ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 4.

⁴⁰ "EOT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 4.

⁴¹ "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017, p. 4.

⁴² "JANA Takes Roughly 5% Stake in Energy Company EQT," by David Benoit, *The Wall Street Journal*, updated 3 July 2017, 12:45 PM.

⁴³ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁴⁴ EOT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

than pursuing substantial and certain value creation through a separation, EQT is proposing an acquisition of Rice Energy ('Rice') at a substantial premium which would delay the possibility and potentially increase the cost (given the tax limitations created by the transaction) of an EQT separation, dilute EQT shareholders' upside from a future separation, unnecessarily increase the complexity of EQT, and immediately destroy shareholder value."⁴⁵ In the letter, JANA remonstrated, "EQT has attempted to justify this proposed acquisition by pointing to claimed financial benefits for EQT shareholders ... this argument withers under the slightest scrutiny."⁴⁶ Specifically, JANA put forth the following points for why the Acquisition of Rice Energy would "destroy shareholder value":

- i. "By financing the transaction with over ninety million shares of EQT stock, which EQT management in its announcement of the Rice acquisition blithely acknowledged is undervalued, the Company is diluting EQT shareholders' upside in a future separation of EQT should the Company pursue one."⁴⁷
- ii. "While EQT claims that a Rice acquisition would generate \$2.5 billion of NPV synergy value through G&A savings and increased capital efficiency (with the potential for limited additional synergies from reductions in lease operating expenses), the acquisition premium of \$1.8 billion which would be paid by existing EQT shareholders to Rice shareholders exceeds EQT shareholders' 65% pro forma ownership of the claimed synergy value, which amounts to only \$1.6 billion, meaning on day one EQT shareholders would be transferring an additional \$200 million of value to Rice shareholders on top of the upside they are forsaking from an eventual separation."
- "We believe the value transfer to Rice shareholders may in fact be much greater. As set forth in more detail in the attached appendix, EQT's calculation of the \$2.5 billion of synergies created by the transaction appears highly questionable, and we

⁴⁵ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁴⁶ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁴⁷ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁴⁸ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

estimate that the actual synergies could fall short by \$1.3 billion, or over 50%. With only 65%, or less than \$800 million, of these synergies accruing to EQT shareholders against an acquisition premium of \$1.8 billion, EQT shareholders would actually be giving away an additional \$1 billion of value."⁴⁹

- 48. Summarizing their concerns, JANA stated in the letter that "In short, a Rice acquisition would result in EQT paying away more than the value of the transaction synergies, the majority of which are questionable or fall outside any common sense definition of synergies, to Rice shareholders and using shares which EQT management itself acknowledges are undervalued, thus substantially diluting the value of an eventual separation to current EQT shareholders by transferring much of their upside potential to Rice shareholders."⁵⁰
- 49. From July 2017 through November 2017, JANA made-public at least 19 additional documents to EQT's board of directors protesting the Acquisition of Rice Energy.⁵¹
 - 3. 27 July 2017: EQT and Rice Energy File Combined Registration Statement Requesting Shareholders to Vote in Favor of the Acquisition
- 50. On 27 July 2017, EQT filed a joint registration statement with Rice Energy on Form S-4 with the SEC in connection with the Acquisition (*i.e.*, the Joint Proxy Registration Statement).⁵² This joint statement expressed that "The EQT board unanimously recommends that EQT shareholders vote 'FOR' the share issuance proposal, 'FOR' the

⁴⁹ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁵⁰ EQT Corporation, Form SC 13D/A, Exhibit E, filed 5 July 2017.

⁵¹ EQT Corporation, Form SC 13D/A, filed 5 July 2017; EQT Corporation, Form SC 13D/A, filed 31 July 2017; EQT Corporation, Form SC 13D/A, filed 14 August 2017; EQT Corporation, Form PREC14A, filed 11 September 2017; EQT Corporation, Form SC 13D/A, filed 20 September 2017; EQT Corporation, Form DFAN14A, filed 21 September 2017; EQT Corporation, Form PRRN14A, filed 26 September 2017; EQT Corporation, Form SC 13D/A, filed 2 October 2017; EQT Corporation, Form DFAN14A, filed 2 October 2017; EQT Corporation, Form DFAN14A, filed 13 October 2017; EQT Corporation, Form CORRESP, filed 13 October 2017; EQT Corporation, Form DFAN14A, filed 16 October 2017; EQT Corporation, Form DFAN14A, filed 24 October 2017; EQT Corporation, Form CORRESP, filed 24 October 2017; EQT Corporation, Form DFAN14A, filed 24 October 2017; EQT Corporation, Form DFAN14A, filed 27 October 2017; EQT Corporation, Form DFAN14A, filed 27 October 2017; EQT Corporation, Form DFAN14A, filed 3 November 2017; EQT Corporation, Form CORRESP, filed 6 November 2017.

⁵² EQT Corporation, Form S-4, filed 27 July 2017.

charter amendment proposal and 'FOR' the EQT adjournment proposal."⁵³ Similarly, the joint statement included that "Rice's board of directors unanimously recommends that Rice stockholders vote 'FOR' the adoption of the merger agreement, 'FOR' the advisory compensation proposal and 'FOR' the Rice adjournment proposal."⁵⁴ A vote to either accept or reject the Acquisition of Rice Energy by EQT would occur during the special meetings of EQT and Rice Energy shareholders, scheduled for 9 November 2017.⁵⁵

4. 9 November 2017: EQT and Rice Energy Shareholders Approve the Acquisition

- 51. On 9 November 2017, EQT filed a Form 8-K reporting that the Company "held a special meeting of shareholders (the Special Meeting) to consider certain proposals related to the Agreement and Plan of Merger." The Form 8-K stated, "At the Special Meeting, the Company's shareholders considered and voted upon the following proposals": ⁵⁷
 - i. "to approve the issuance of shares of Common Stock to stockholders of Rice in connection with the Merger Agreement (the Share Issuance Proposal)."⁵⁸
 - ii. "to approve an amendment and restatement of the Company's Restated Articles of Incorporation to provide that the number of members of the board of directors of the Company be not less than five nor more than fifteen (the Charter Amendment Proposal)."⁵⁹
 - iii. "to approve the adjournment of the Special Meeting, if necessary or appropriate, to solicit additional proxies if there were not sufficient votes to approve the Share Issuance Proposal (the Adjournment Proposal)."

⁵³ EQT Corporation, Form S-4, filed 27 July 2017.

⁵⁴ EQT Corporation, Form S-4, filed 27 July 2017.

⁵⁵ "EQT Reports Third Quarter 2017 Earnings," Business Wire, 26 October 2017 6:30 AM.

⁵⁶ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

⁵⁷ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

⁵⁸ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

⁵⁹ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

⁶⁰ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

52. The Form 8-K reported that "Each proposal was approved by the requisite vote of the Company's shareholders." 61

5. 13 November 2017: EQT Completes Acquisition of Rice Energy

53. On 13 November 2017, prior to the start of trading, EQT issued a press release titled "EQT Completes Acquisition of Rice Energy." Alongside announcing that the Acquisition was now complete, the press release included the following statement from CEO Schlotterbeck:

"With the closing of the transaction, we are combining two of the leading operators in the Appalachian Basin to create an even stronger company that is positioned to deliver greater returns to shareholders through operating efficiencies and improved overall well economics ... This transaction complements our production and midstream businesses and will deliver significant operational synergies to help us maintain our status as one of the lowest-cost operators in the United States. The EQT Board and management team have taken considerable steps to strengthen the Company's platform and we look forward to identifying additional opportunities to maximize value for all EQT shareholders."

"EQT Completes Acquisition of Rice Energy," *Business Wire*, Company press release, 13 November 2017, 8:35AM.

6. 21 February 2018: EQT Announces Plan to Spinoff Midstream Business

54. On 21 February 2018, prior to the market's open, EQT issued a press release titled "EQT Announces Plan to Separate Midstream Business."

"EQT Corporation (NYSE: EQT) today announced that its Board of Directors has unanimously approved a plan to separate its upstream and midstream businesses, creating a standalone publicly traded corporation (NewCo) that will focus on midstream operations. The separation is intended to qualify as tax-free to EQT shareholders for U.S. federal income tax purposes; and is expected to be completed by the end of the third quarter

⁶¹ EQT Corporation, Form 8-K, filed 9 November 2017, p. 2.

⁶² "EQT Completes Acquisition of Rice Energy," *Business Wire*, Company press release, 13 November 2017, 8:35AM.

⁶³ "EQT Announces Plan to Separate Midstream Business," *Business Wire*, Company press release, 21 February 2018, 6:30 AM.

2018. Under the separation plan, EQT shareholders will retain their shares of EQT stock and receive a pro-rata share of the new independent midstream company. Both companies will remain headquartered in Pittsburgh, PA."

"EQT Announces Plan to Separate Midstream Business," *Business Wire*, Company press release, 21 February 2018, 6:30 AM.

55. EQT CEO Steve Schlotterbeck was quoted in the press release, stating:

"When we announced the Rice Energy acquisition, we committed to addressing the sum-of-the-parts discount in our shares. The Rice transaction accelerated the maturation of both our businesses, provided scale that significantly enhanced the standalone prospects of both companies, and positioned us to further enhance value through separation. We are now the largest natural gas producer in the U.S. — with a strong and strategic midstream system in the best natural gas basin in the country. We will complete the separation with urgency, consistent with our commitment to shareholders."

"EQT Announces Plan to Separate Midstream Business," *Business Wire*, Company press release, 21 February 2018, 6:30 AM.

7. 25 October 2018: EQT Reports Disappointing Earnings for 3Q 2018

- 56. On 25 October 2018, prior to the start of trading, EQT announced its financial results for 3Q 2018 and later held a conference call with investors.⁶⁴ For 3Q 2018, the Company reported total operating revenues of \$1.16 billion, a net loss of \$39.7 million, and adjusted net income of \$90.9 million.⁶⁵ ⁶⁶ Earnings per share ("EPS") were -\$0.15 and adjusted EPS was \$0.35.⁶⁷ The Company's revenue and adjusted EPS results were below analysts' expectations of \$1.21 billion and \$0.40 per share, respectively.⁶⁸
- 57. EQT explained that the worse-than-expected results were "primarily due to higher operating costs, including a charge of \$259.3 million on capacity contracts related to the

⁶⁴ "EQT Reports Third Quarter 2018 Results," Business Wire, Company press release, 25 October 2018, 6:16 AM.

⁶⁵ EQT Corporation, Form 10-Q for the quarterly period ended 30 September 2018, filed 25 October 2018, p. 3.

^{66 &}quot;EQT Reports Third Quarter 2018 Results," Business Wire, Company press release, 25 October 2018, 6:16 AM.

⁶⁷ "EQT Reports Third Quarter 2018 Results," *Business Wire*, Company press release, 25 October 2018, 6:16 AM.

⁶⁸ "06:18 EDT EQT Corporation Reports Q3 Adjusted EPS 35c, Consensus 40creports Q3...," *Theflyonthewall.com*, 25 October 2018.

- sale of the Huron assets, and higher interest expense."⁶⁹ Further, the Company stated, "Estimated well development capital expenditures for 2018 increased by \$300 million to \$2.5 billion. This was driven by inefficiencies resulting from higher activity levels, the learning curve on ultra-long laterals and service cost increases."⁷⁰
- 58. In their reports published following the earnings announcement, analysts voiced concerns about the Company's larger than expected capital expenditures and stressed their disappointment with EQT's "capital efficiency":

"EQT reported 3Q18 production and DCF in line with our estimates, but E&P capex was well above. In addition, 4Q18 production was cut by 7.5% and implies minimal sequential growth, which EQT attributes to timing of completions throughout the quarter. Full-year capex also increases by \$0.3Bn, implying an all-in E&P budget of \$2.7Bn (\$0.2Bn land/other), and with \$2.23Bn spent YTD, will likely be exceeded. We'll look for 2019 color on the call to address capital efficiency degradation concerns."

"3Q Vols/CF in Line, But 4Q Cut While Capital Efficiency Weakens," by Phillip Jungwirth, BMO Capital, analyst report, 25 October 2018, p. 1.

"Capital efficiency disappoints due to higher base decline rate and well costs. ... Investors may also be disappointed by the lack of meaningful free cash flow next year given much higher maintenance capex needed to stem a base decline rate of $\sim 30\%$."

"Capital Efficiency Outlook Disappoints," by Betty Jiang and Chris Baker, Credit Suisse, analyst report, 25 October 2018, p. 1 (emphasis in original).

"Higher Capex, Lower FY18 Volume Guidance. EQT is raising FY18 D&C capex 14% to \$2.5bn (from \$2.2bn) as a result of inefficiencies from higher activity levels, the learning curve on ultra-long laterals, and service cost inflation."

"3Q Miss; Higher Capex, Lower Production Guidance," by Mark Lear et al., Jefferies, analyst report, 25 October 2018, p. 1 (emphasis in original).

"JPM View: Stock Reaction—Negative. Despite the long awaited approval to spinoff EQT Midstream and a slight cash flow beat, we anticipate a negative kneejerk reaction to the print as EQT Production increased its 2018 D&C capex guidance by 13.6%, or \$300 MM, to \$2.5 billion with a corresponding 30 Bcfe (~2.0%) reduction to the 4Q18 production guide. ... EQT cited inefficiencies associated with higher

⁶⁹ "EQT Reports Third Quarter 2018 Results," *Business Wire*, Company press release, 25 October 2018, 6:16 AM.

⁷⁰ "EQT Reports Third Quarter 2018 Results," *Business Wire*, Company press release, 25 October 2018, 6:16 AM.

activity levels, teething issues with longer laterals, and OFS inflation for the higher capex, while 4Q18 production will be negatively impacted by the timing of the TIL schedule. On a present value basis, the \$300 MM capex overage should translate into a ~\$1.15 per share impact, but the market will likely price in some deterioration in capital efficiency in 2019. Key for the call is for management to discuss how much of the capex overage could be recurring in nature versus specific to 2018."

"3Q18 Flash: Long Awaited Separation is Finally Here, But Met with Capital Efficiency Concerns – ALERT," by Arun Jayaram et al., JPMorgan, analyst report, 25 October 2018, p. 1(emphasis in original).

"EQT increased its 2018 development budget by \$300 million to \$2.5 billion due to inefficiencies resulting from higher activity levels, the learning curve on ultra-long laterals and service cost increases."

"Q3 '18 Results; Quick Read: Increases E&P Budget/Reduces Production Guidance," by Michael Schmitz, Ladenburg Thalmann, 25 October 2018, p. 1.

"Our View: Across the board, 3Q18 operational results were below expectations and the 2018 budget was increased while production was reduced. The company had operational challenges with the ultra-long lateral development that caused higher costs and delays in completions."

"EQT - (Correction) 3Q18 CFPS Miss by 3%; Separation Off to a Slow Start," by Scott Hanold, RBC Capital, analyst reports, 25 October 2018, p. 1 (emphasis in original).

"The \$300mm increase (~13.5%) in spending will weigh on the production franchise given strict focus on capital allocation. We view it as a 'kitchen sink' release for EQT as regular-way trading will commence on Nov. 13 for ETRN, allowing investors to shift focus to the upstream and midstream franchises as standalone entities."

"Mixed Bag - Weakened 2018 Guidance," by Holly Stewart and Joe Vandrick, Scotia Howard Weil, analyst reports, 25 October 2018, p. 1.

"EQT turned in an in-line 3Q, but was punished after raising '18 capex by \$300mm (+14%, see note) and giving disappointing preliminary FY:19 capex and production targets of \$2.0-2.2b and 1,470-1,510 bcfe and a five-year growth scenario in the 'mid-single-digits' vs consensus' ~8-10%."
"Spin and Fall; Rolling Out Stand-Alone Metrics," by Welles Fitzpatrick and

Bertrand Donnes, SunTrust Robinson, analyst report, 25 October 2018, p. 1.

59. Jefferies analysts, in particular, also highlighted that the poor financial results indicated a "slower than anticipated integration of the RICE acquisition":

"Slower than anticipated integration of the RICE acquisition driving higher capex (inefficiencies from higher activity levels, learnings on longer laterals). ■ FY19 growth. No color given in the release, but recent conversations with the company and investors have indicated that growth would be lower than the 15% guidance with the RICE transaction (and will now be off a lower FY18 production base)."

"3Q Miss; Higher Capex, Lower Production Guidance," by Mark Lear et al., Jefferies, analyst report, 25 October 2018, p. 1.

8. 13 November 2018: EQT Completes the Spin-Off

60. On 13 November 2018, prior to the start of trading, EQT issued a press release titled "EQT Completes Separation of Midstream Business, Begins New Chapter as Focused Industry Leader." The press release explained that "The spin-off was effected through a pro rata distribution to EQT's shareholders of 80.1% of the outstanding common stock of ETRN effective at 11:59 p.m. (ET) on November 12, 2018. EQT shareholders retained their EQT shares and received 0.80 shares of ETRN common stock for every one share of EQT common stock outstanding as of the close of business on November 1, 2018. EQT retained 19.9% of the outstanding common stock of ETRN."

9. 5 February 2019: The Rice Team Files a Proxy Statement Presenting Its Proposal to Improve Operational Performance and Increase Shareholder Value at EQT

61. On 5 February 2019, EQT filed a Form DFAN14A proxy statement with the SEC. The document contained a slide deck presenting former Rice Energy shareholders' proposal to "improve operational performance and increase shareholder value at EQT." These former Rice Energy shareholders were Toby Rice and Derek Rice and their executive team ("Rice Team"). Within this slide deck, the Rice Team explained their motivation.

⁷¹ "EQT Completes Separation of Midstream Business, Begins New Chapter as Focused Industry Leader," *Business Wire*, Company press release, 13 November 2018, 6:30 AM.

⁷² "EQT Completes Separation of Midstream Business, Begins New Chapter as Focused Industry Leader," *Business Wire*, Company press release, 13 November 2018, 6:30 AM.

⁷³ EQT Corporation, Form DFAN14A, filed 5 February 2019.

⁷⁴ EQT Corporation, Form DFAN14A, filed 5 February 2019.

- "As significant shareholders (7.5mm shares), we were disappointed with EQT's 2018 operational miss. This miss prompted significant shareholder outreach to the Rice team due to our experience developing EQT's assets."
- ii. "Rice initiated private dialogue with EQT to offer our assistance in fixing the business. EQT ignored our outreach and the views of many shareholders." ⁷⁶
- iii. "EQT's 2019 plan demonstrates their lack of vision about what is possible with its assets."⁷⁷
- 62. The presentation from the Rice Team offered the following three solutions to "deliver EQT's potential to shareholders":
 - "Add Proven Leadership: RICE delivered peer leading well costs & productivity while being named #1 Top Workplace in Pittsburgh. Full team is standing by."
 - ii. "Implement Technology Platform: RICE apps to streamline organization and digitize workflows."⁷⁹
 - iii. "Effective Planning: Align and incentivize employees, optimize schedule to enable combo pad development."⁸⁰
- 63. The Rice Team further stated that, in order to effectuate these changes, EQT should install "Toby Rice as CEO, former COO of RICE Energy who pioneered RICE's digital transformation" and "New Board Leadership to oversee shareholder mandate for change."81
- 64. Importantly, the Rice Team claimed in their presentation that "We believe EQT's well costs have been erroneously adjusted downwards in an attempt to normalize costs" and

⁷⁵ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 2.

⁷⁶ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 2.

⁷⁷ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 2.

⁷⁸ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 4 (emphasis in original).

⁷⁹ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 4 (emphasis in original).

⁸⁰ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 4 (emphasis in original).

⁸¹ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 4.

- that "EQT costs could be \$125 \$250/ft higher when including capitalized costs, pad and facilities, etc." The presentation also stressed that "EQT's plan is based on aspirational targets they have not been able to achieve and are far above Rice's targets." 83
- During the call, the Rice Team explained that "Following the announcement of the Rice-EQT merger, we spent 5 months with EQT management, laying out the blueprint that led to Rice's operational success: Our people, technology and planning. Ignoring this, EQT decided to move forward with their internal systems and without critical personnel who are responsible for Rice's success."
- 66. On 5 February 2019, the price of EQT stock declined 3.55% (on a logarithmic basis) with 4.8 million shares traded. News media attributed the decline in EQT's stock price to the Rice Team's presentation:

"On Tuesday, in a presentation to shareholders, they proposed appointing Toby Rice, former chief operating officer for Rice Energy, as EQT's new chief executive, and revamping its board. EQT in January released its 2019 guidance, drawing criticism from the Rice brothers who said they would challenge the board in a shareholder ballot. The brothers said they could improve EQT's free cash flow by \$500 million per year. They proposed streamlining aspects of the organization, digitizing workflows, and improving planning to reduce well cost. A representative for EQT did not immediately respond to a request for comment. Shares of EQT were down 1.4 percent to \$19.49 in mid-morning trading on Tuesday and are off 28 percent in the past 52 weeks."

"Rice Founders Rebuke Gas Producer EQT, Pressing Case for New Board, CEO," *Reuters News*, 5 February 2019, 12:13 AM.

67. RBC Capital and TD Securities addressed the Rice Team's presentation in their 5 February 2019 reports:

 $^{^{82}}$ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 13.

⁸³ EQT Corporation, Form DFAN14A, filed 5 February 2019, slide 16.

⁸⁴ "EQT Corp Call to Discuss Plan for EQT," *Thomson Reuters*, conference call, 5 February 2019.

^{85 &}quot;EQT Corp Call to Discuss Plan for EQT," *Thomson Reuters*, conference call, 5 February 2019, p. 2.

"The Rice Team's rebuttal included a more detailed plan. Today, the Rice Team detailed plans to drive shareholder value through decreasing well costs. They followed up EQT's thorough outlook with their presentation that quantifies areas they expect to improve on. On the call, they provided more context to reaching a more rapid FCF generation scenario if placed in the driver's seat. The Rice Team highlighted that it should not take much time for them to transition into this more robust outlook. The parties seem to both agree that stock buybacks are a first call with FCF generation but the Rice Team seemed confident in its plans to evaluate those actions soon. The Rice Team appear to bias a little less growth and more FCF."

"The Debate Continues...," by Scott Hanold et al., RBC Capital, analyst report, 5 February 2019, p. 1 (emphasis in original).

"The former management team of Rice Energy outlined its own path forward for EQT. The Rice team plans to replace current the EQT management and Board members with a team led by Toby Rice (former COO of Rice Energy). In its simplest form, Rice claims that they are able to operate in a more efficient manner (through better planning, technology and operational management), which will lower capital costs, improve FCF, and ultimately equity value."

"Rice Team Outlines Their Plan for EQT," by Aaron Bilkoski and Mahad Nadeem, TD Securities, analyst report, 5 February 2019, p. 1 (emphasis in original).

- 68. On the same day, EQT responded publicly to the Rice Team's presentation, stating, "We disagree with the analysis put forward by the Rices and look forward to continuing our discussions directly with shareholders," and "EQT remains focused on reducing costs and generating substantial free cash flow to create further value for EQT shareholders." 87
 - 10. 17 June 2019: The Rice Team Files a Proxy Statement Detailing EQT's Failures to Deliver Promised Acquisition Synergies
- 69. On 17 June 2019, after the close of trading, EQT filed a Form DFAN14A proxy statement with the SEC, which contained another slide deck presentation from the Rice

⁸⁶ "Rices Say They'll Do a Better Job with EQT Than Current Management," *Pittsburgh Business Times Online*, 5 February 2019.

⁸⁷ "UPDATE 1-Rice brothers want to replace EQT board, CEO," by Liz Hampton, *Reuters News*, 5 February 2019, 4:27 PM.

Team.⁸⁸ The slide deck summarized the Rice Team's grievances against EQT and its management as follows:

- "EQT Failed to Execute on Rice Energy Synergies and Destroyed Value in 2018";⁸⁹
- ii. "EQT's Operating Performance Has Been Disappointing";90
- iii. "EQT Has Not Been Transparent With Shareholders";91
- iv. "EQT's Board Composition and Governance is Lacking";92
- v. "EQT's Shareholder Returns Have Lagged Peers";93 and
- vi. "EOT's Latest Plan Will Not Deliver Long-Term Value."94
- 70. Specifically, the Rice Team's presentation claimed that "EQT Failed to Achieve Benefits of Combination," stating in particular that "EQT did not seek and has not achieved the synergies and cost savings that were the purported rationale for the Rice Energy deal," and that "EQT has failed to publicly acknowledge its inability to achieve 90%+ of the merger synergies." To support their claims, the Rice Team cited the following:
 - i. "EQT fired nearly every Rice Energy executive and leader soon after the transaction, after telling the market that EQT would seek to retain key executives"; 96
 - ii. "EQT refused to adopt Rice Energy's superior operational processes and technology";⁹⁷

⁸⁸ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019.

⁸⁹ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹⁰ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹¹ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹² EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹³ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹⁴ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 2.

⁹⁵ EOT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9.

⁹⁶ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9 (emphasis in original).

⁹⁷ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9 (emphasis in original).

- iii. "EQT remains an old-line, hierarchical, siloed organization that is best fit for the 1990s":98
- iv. "Within nine months of the close of the transaction, **EQT was wildly over budget** and cutting its production forecasts";99
- v. "EQT's **drilling costs remained the worst in the basin** and it is the only operator that has to curtail a significant percentage of its production base because of an inability to coordinate its upstream production with midstream services." ¹⁰⁰
- 71. Notably, the Rice Team's presentation also charged that "EQT is omitting >\$300mm of cash costs from all of its operational metrics." The Rice Team expounded that, in reality, "EQT's drilling costs are higher than peers on an apples-to-apples basis." Further, the presentation stated that EQT's "plan" "lacks supporting evidence" and quoted from a previously non-public June 2018 EQT Request for Proposals that admitted EQT operated in a "siloed" fashion and that EQT "may not currently have the right skill sets internally to effectuate this undertaking." 103
- 72. Following the dissemination of the Rice Team's presentation, the price of EQT stock fell from \$15.85 per share on 17 June 2019 to close at \$15.16 per share on 19 June 2019, on 7.5 million shares traded, reflecting a decline of 4.45% (on a logarithmic basis).
- 73. RBC analysts addressed the Rice Team's presentation in their report.

"The Rice Team responded to EQT Corporation's (EQT) operational and financial update from yesterday. The Rice response highlighted that while there is progress, operational and stock performance was below peers and that the past track record of the current team was sub-par. Rice also points out that at current strip prices the \$3 billion of FCF is not achievable (EQT notes this is based at a \$2.75/Mcf HH deck), 2Q19 FCF generation will be negative (EQT's guidance for 2Q19 and 3Q19 was a negative \$50-100 million due to seasonal pricing), and 2019 spending reduction of \$25

⁹⁸ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9 (emphasis in original).

⁹⁹ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9 (emphasis in original).

¹⁰⁰ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 9 (emphasis in original).

¹⁰¹ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 53.

¹⁰² EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, p. 53.

¹⁰³ EQT Corporation, Form DFAN14A, Exhibit-1, filed 17 June 2019, pp. 21 and 44.

million is being touted on a \$2 billion budget (EQT formal budget at \$1.85-1.95 billion) only after being challenged and in front of the shareholder vote. The Rice Team has a comprehensive presentation discussing its plan to lower well costs and generating \$500 million of incremental FCF and discusses the benefits of its leadership that can be found using the following link."

"EQT - Rice Team Response Along with a Prompt EQT Follow-Up," by Scott Hanold, RBC Capital, analyst report, 18 June 2019, p. 1.

C. EQT Common Stock

- 74. Throughout the Class Period, EQT common stock traded on the NYSE under the ticker symbol EQT.¹⁰⁴
- 75. EQT's stock price at the start of the Class Period stood at \$53.51 per share, according to price data obtained from the Center for Research in Security Prices ("CRSP"), a reliable data source that is widely used by academic researchers and investment professionals.
- 76. The closing stock price peaked during the Class Period at \$67.02 per share on 27 July 2017. On 10 November 2017, the last trading day before the Acquisition, EQT's closing stock price was \$65.18. On 13 November 2017, the day EQT completed the Acquisition, EQT's closing stock price was \$64.58. By the close of trading on 12 November 2018, the last trading day before the Spinoff was completed, EQT's closing stock price had fallen to \$34.64, a decline of \$32.38 per share from the peak, representing a 48.3% decline in the Company's stock price. On 13 November 2018, the day EQT completed the Spinoff, EQT's closing stock price was \$18.56.
- 77. By the close of trading on 19 June 2019, two days after the last day of the Class Period, EQT's stock price had further fallen to \$15.16 per share, a decline of \$3.40 per share or 18.3% from the day EOT completed the Spinoff.
- 78. EQT's common stock prices during the Class Period are included in Exhibit-4.
- 79. EQT's market capitalization (the aggregate value of all outstanding shares) at the start of the Class Period was \$9.3 billion. On 10 November 2017, the last trading day before

¹⁰⁴ EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 41; and EQT Corporation, Form 10-K for the fiscal year ended 31 December 2019, filed 27 February 2020, p. 40.

¹⁰⁵ Pricing data obtained from CRSP.

¹⁰⁶ Shares outstanding data obtained from Company SEC filings.

the Acquisition, EQT's market capitalization stood at \$11.3 billion. On 13 November 2017, the day EQT completed the Acquisition, EQT's market capitalization reached its Class Period peak at \$16.7 billion. By the close of trading on 12 November 2018, the last trading day before the Spinoff was completed, EQT's market capitalization had fallen to \$8.8 billion, a decline of \$7.9 billion from the peak, representing a 47.1% decline in the Company's market value of equity. On 13 November 2018, the day EQT completed its Spinoff, EQT's market capitalization stood at \$4.7 billion.

80. By the close of trading on 19 June 2019, the Company's market capitalization had further fallen to \$3.9 billion, a decline of \$0.8 billion from the day EQT completed its Spinoff, representing a 18.0% decline in the Company's market value of equity. 108

V. PLAINTIFFS' ALLEGATIONS

- 81. Plaintiffs allege that during the Class Period EQT made false and misleading statements, and material omissions, regarding the Acquisition's benefits to shareholders. Plaintiffs allege that Defendants misled analysts and investors, and thereby artificially inflated the EQT stock price, by stating that the Acquisition "will provide substantial synergies and make this transaction significantly accretive in the first year" and by concealing "EQT's abject inability to achieve the claimed synergies." 110
- 82. Specifically, Plaintiffs allege that "Defendants knowingly or recklessly made materially false and misleading statements and/or omitted material facts because the synergies cited as a basis for the Acquisition were impossible to achieve due to the fact that EQT and Rice lacked the combined undrilled acreage, and the capability, to achieve these synergies." Plaintiffs further allege that Defendants knowingly or recklessly made materially false and misleading statements and/or omitted material facts when, following the Acquisition, Defendants hid operational issues and rising costs from investors and

¹⁰⁷ Apparent mathematical discrepancy due to rounding.

¹⁰⁸ Apparent mathematical discrepancy due to rounding.

¹⁰⁹ Complaint, ¶3 (emphasis in original).

¹¹⁰ Complaint, ¶5.

¹¹¹ Motion to Dismiss Opinion, p. 9.

- instead incorrectly informed shareholders that EQT was "combining best practices,' 'ahead of schedule for achieving our capital synergies,' and 'well on track to deliver and exceed' the \$2.5 billion of 'base' synergies."
- 83. Plaintiffs allege that investors and other market participants began to learn the truth on 25 October 2018, when "the Company shocked the market by reporting sharply negative third-quarter financial results caused by an increase in total costs, which were \$586.2 million higher than in the same period of the prior year." Plaintiffs further allege that on 25 October 2018:

"The Company disclosed that its estimated capital expenditures for well development in 2018 would increase by \$300 million, to \$2.5 billion, as a result of 'inefficiencies resulting from higher activity levels, the learning curve on ultra-long laterals, and service cost increases,' which had in fact arisen during the first half of the year. As a result, the Company reduced its full-year forecast for 2018. These disclosures partially revealed that the Company's prior statements about the Acquisition's synergies had been materially false and misleading at the time they were made."

Complaint, ¶13.

- 84. Plaintiffs allege that more of the previously concealed truth was revealed on 5 February 2019, when the Rice Team disclosed, among other things, that EQT had repeatedly refused to adopt Rice's best practices when approached by Rice Energy employees, and that EQT had previously understated and erroneously adjusted well costs downwards in an attempt to normalize its costs. The February 2019 Rice presentation stressed that "EQT's plan is based on aspirational targets they have not been able to achieve and are far above Rice's targets."
- 85. Plaintiffs allege that EQT's misrepresentations and omissions were ultimately corrected in "lengthy and detailed proxy materials" filed with the SEC after the market closed on 17 June 2019. In the filed document, the Rice Team disclosed: "(i) EQT failed to achieve the benefits of the Acquisition; (ii) EQT did not seek and had not achieved the synergies and cost savings that were the purported rationale of the Acquisition; (iii) EQT

¹¹² Motion to Dismiss Opinion, p. 10.

¹¹³ Complaint, ¶13.

¹¹⁴ Complaint, ¶¶344-48.

terminated nearly every Rice executive and leader after telling the market that EQT would seek to retain key Rice executives; (iv) EQT was excluding more than \$300 million in costs it capitalizes from its well costs; and (v) EQT leadership 'lacks credibility and has misled shareholders." The June 2019 Rice presentation stated that EQT's "plan" "lacks supporting evidence" and quoted from a previously non-public June 2018 EQT Request for Proposals that admitted EQT operated in a "siloed" fashion and that EQT "may not currently have the right skill sets internally to effectuate this undertaking."

VI. MARKET EFFICIENCY DEFINITION AND ASSESSMENT METHODOLOGY

A. Efficient Market Defined

86. The definition of market efficiency set forth by Judge Alfred J. Lechner, Jr. in the 1989 *Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989), decision is often cited as a legal authority on the meaning of market efficiency¹¹⁶ and is consistent with the definition of informational efficiency generally accepted by the academic finance community.

"As relevant here, courts have permitted a rebuttable presumption of reliance in the case of securities traded in 'efficient markets' (*i.e.*, markets which are so active and followed that material information disclosed by a company is expected to be reflected in the stock price)."

Cammer, 711 F. Supp., at 1273.

87. Judge Lechner also cited the definitions offered by commentators Alan R. Bromberg and Lewis D. Lowenfels, and by renowned financial economist and Nobel Laureate Eugene Fama.

"An efficient market is one which rapidly reflects new information in price."

Alan Bromberg and Lewis Lowenfels, *Securities Fraud and Commodities Fraud*, § 7.4 (Dec. 2003); *see also Cammer*, 711 F. Supp. at 1276.

¹¹⁵ Complaint, ¶386.

¹¹⁶ See, e.g., Di Donato. v Insys Therapeutics, Inc., 333 F.R.D. 427 (D. Ariz. 2019).

"A market in which prices always 'fully reflect' available information is called 'efficient."

"Efficient Capital Markets: A Review of Theory and Empirical Work," by Eugene Fama, *The Journal of Finance*, 1970; see also Cammer, 711 F. Supp. at 1280.

88. In his 1991 follow up article titled "Efficient Capital Markets: II," Professor Fama elaborated, qualifying the definition to conform to economic realities rather than the perfect ideal.

"I take the market efficiency hypothesis to be the simple statement that security prices fully reflect all available information. ... A weaker and economically more sensible version of the efficiency hypothesis says that prices reflect information to the point where the marginal benefits of acting on information (the profits to be made) do not exceed the marginal costs." "Efficient Capital Markets: II," by Eugene Fama, *The Journal of Finance*, 1991, p. 1575.

89. Professor Fama and a group of preeminent economists described market efficiency and the state of the profession's general understanding in an *amici curiae* brief that they submitted in 2014 to the United States Supreme Court in the *Halliburton II* case.

"There is widespread debate about market efficiency among economists, and the signatories of this brief include participants with varying positions on that debate. It is critical, however, to be clear about what issues are in dispute—and what issues are not. Economists disagree about whether markets perfectly process information and how quickly they do so; about whether prices reflect the fundamental value of the underlying stock; ... and about whether it is possible to 'beat the market' by pursuing various investment strategies designed to exploit pricing anomalies. Such disagreements existed when Basic [Inc. v. Levinson, 485 U.S. 224] was decided in 1988, and they exist today. But economists do not generally disagree about whether market prices respond to new material information." Brief of Financial Economists as Amici Curiae in Support of Respondents, Halliburton Co. and David Lesar v. Erica P. John Fund, Inc., 5 February 2014, p. 3 (emphasis in original).

90. The Supreme Court in the 1988 *Basic v. Levinson* decision focused on the same important characteristic at the heart of these definitions of market efficiency.

"The fraud on the market theory is based on the hypothesis that, in an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business"

Basic, Inc. v. Levinson, 485 U.S. 224, 108 S. Ct. 978, 989 (1988).

91. The Supreme Court's 2013 Amgen decision defined market efficiency similarly.

"The fraud-on-the market premise is that the price of a security traded in an efficient market will reflect all publicly available information about a company...."

Amgen, Inc. v. Conn. Ret. Plans & Trust Funds, 133 S. Ct. 1184, 1190, 185 L. Ed. 2d 308 (2013).

92. In its 2014 *Halliburton II* decision, the Supreme Court addressed the cause-and-effect relationship at the center of market efficiency as follows:

"Even the foremost critics of the efficient-capital-markets hypothesis acknowledge that public information generally affects stock prices. ... Debates about the precise *degree* to which stock prices accurately reflect public information are thus largely beside the point. 'That the...price [of a stock] may be inaccurate does not detract from the fact that false statements affect it, and cause loss,' which is 'all that *Basic* requires.'"

Halliburton Co. v. Erica P. John Fund, Inc., 134 S. Ct. 2398, 2410 (2014) (emphasis in original).

93. An efficient market, as defined and discussed by *Cammer, Basic, Amgen, Halliburton II*, Bromberg and Lowenfels, Professor Fama, and other leading scholars, is a market in which available information is incorporated into the price of a security such that the trading price reflects available information with reasonable promptness. As court cases have recognized, market efficiency is relevant to a securities case because it addresses the question of whether false information (*e.g.*, in the form of an alleged misrepresentation or omission) would likely have impacted the prices at which investors bought and sold securities, and upon which investors relied.

B. Indicators of Market Efficiency

1. The Cammer Factors

94. The *Cammer* opinion lays out five factors that generally indicate whether the market for a security is efficient. As described below, economic rationales and published peer-

- reviewed research support each factor as an indicator of market efficiency. The five factors are (i) trading volume, (ii) coverage by securities analysts, (iii) number of market makers, (iv) eligibility for Form S-3 registration, and (v) empirical evidence demonstrating that the security price reacts to new, company-specific information.
- 95. Empirical research published by Barber, Griffin, and Lev [1994] confirmed that trading volume, number of market makers, and analyst coverage are indicative of market efficiency.

"Consistent with the efficiency indicators used recently by the courts, the inefficient firms have lower mean trading volume, fewer market makers, lower analyst following, and lower institutional ownership (number and percentage) than efficient firms."

"The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency," by Brad Barber et al., *The Journal of Corporation Law*, 1994, p. 302.

- 96. Barber, Griffin, and Lev [1994] found that high institutional ownership is also indicative of market efficiency.¹¹⁷
- 97. Recently published peer reviewed research that I conducted (with Miguel Villanueva, Ph.D.) found that the *Cammer* factors are dispositive indicators of stock price reactivity to information and therefore informational market efficiency.

"We find that the *Cammer/Krogman* factors are indeed significant drivers of stock price reactivity. ... Our findings that the *Cammer/Krogman* factors are generally dispositive of reactivity supports the widespread use by courts of the *Cammer/Krogman* factors as indicia of market efficiency."

"Stock Price Reactivity to Earnings Announcements: The Role of the

"Stock Price Reactivity to Earnings Announcements: The Role of the *Cammer/Krogman* Factors," by Miguel Villanueva and Steven Feinstein, *Review of Quantitative Finance and Accounting*, 2020, p. 31 (currently published online and forthcoming in print).

98. Consistent with financial economic theory and empirical research, the language used by the *Cammer* court describes the factors not as a checklist of five necessary factors, but rather as individual pieces of evidence that each probatively indicates the degree to which the market for a security is expected to be efficient.

¹¹⁷ "The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency," by Brad Barber et al., *The Journal of Corporation Law*, 1994.

"There are several different characteristics pertaining to the markets for individual stocks which are probative of the degree to which the purchase price of a stock should reflect material company disclosures." *Cammer*, 711 F. Supp. at 1283.

99. The *Cammer* opinion describes the nature of the five factors as follows:

"There are several types of facts which, if alleged, might give rise to an inference that Coated Sales [stock] traded in an efficient market. It is useful to set forth an explanation of how the existence of such facts would cause the understanding that disclosed company information (or misinformation) would be reflected in the company's stock price, the underpinning of the fraud on the market theory. *Peil, supra,* 806 F.2d at 1160." *Id.* at 1285-86 (footnote omitted).

"First, plaintiffs could have alleged there existed an average weekly trading volume during the class period in excess of a certain number of shares. *Abell v. Potomac Ins. Co.*, 858 F.2d 1104, 1121 (5th Cir.1988)." *Id.* at 1286 (footnote omitted).

"Second, it would be persuasive to allege a significant number of securities analysts followed and reported on a company's stock during the class period."

Id.

"Third, it could be alleged the stock had numerous market makers." *Id.*

"Fourth, as discussed, it would be helpful to allege the company was entitled to file an S-3 Registration Statement in connection with public offerings...."

Id. at 1287.

"Finally, it would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price."

Id.

"As previously noted, one of the most convincing ways to demonstrate efficiency would be to illustrate, over time, a cause and effect relationship between company disclosures and resulting movements in stock price."

Id. at 1291.

2. The Krogman Factors

- 100. In addition to the five *Cammer* factors that indicate market efficiency, the Fifth Circuit Court of Appeals in *Unger v. Amedisys*, 401 F.3d 316 (5th Cir. 2005) and the district court in *Krogman v. Sterritt*, 202 F.R.D. 467 (N.D. Tex. 2001) accepted that three additional factors are also indicative of market efficiency.
- 101. These additional factors, the *Krogman* factors, are (i) the company's market capitalization, (ii) the stock's float, and (iii) the typical bid-ask spread.
- 102. Market capitalization is the total value of all outstanding common equity shares. It equals the number of shares outstanding times the price per share. Logically, the larger a company's market capitalization, the more prominent and well-known the company will be. Larger companies tend to attract more analyst and news media coverage and gain the attention of greater numbers of investors, including large institutional investors. All of these characteristics, which accompany a large market capitalization, promote market efficiency.
- 103. The stock's float is the number of shares outstanding less shares held by insiders and affiliated corporate entities. It is the number of shares available for trading by outside investors in the open market. Float is closely related to market capitalization but focuses on the shares available for trading rather than all outstanding shares. Stocks with large floats tend to trade more actively, attract more analyst and news media coverage, and garner the attention of a greater number of investors, including large institutional investors. All of these characteristics, which occur when a company has high float, promote market efficiency.
- 104. The bid-ask spread is the difference between the price at which market makers are offering to buy a security and the price at which they are offering the security for sale. If a security is actively traded and information about the security is readily available, the bid-ask spread tends to be narrow. A narrow bid-ask spread makes trading in the security less costly for investors and thereby tends to attract greater interest, greater coverage, and greater volume, all of which, in turn, promote market efficiency.¹¹⁸

¹¹⁸ See, e.g., "The Cost of Transacting," by Harold Demsetz, *The Quarterly Journal of Economics*, 1968, pp. 33-53; "Bid-Ask Spreads and Trading Activity in the S&P 100 Index Options Market," by Thomas George and Francis

105. Villanueva and Feinstein [2020, forthcoming] empirically examined and tested the market capitalization and bid-ask spread *Krogman* factors and found them to be probative indicators of stock price reactivity and therefore informational market efficiency.

VII. ANALYSIS OF EFFICIENCY OF THE MARKET FOR EQT STOCK

- 106. To assess whether the market for EQT stock was efficient during the Class Period, I analyzed the market for, and behavior of, EQT stock, focusing on the *Cammer* and *Krogman* factors, which are generally accepted to be indicative of market efficiency for a publicly traded stock.
- 107. I examined the *Cammer* and *Krogman* factors for the Class Period as a whole and also separately for three subintervals within the Class Period: 19 June 2017 through 12 November 2017 (the "pre-Acquisition Interval" or "Interval-1"), 13 November 2017 through 12 November 2018 (the "post-Acquisition pre-Spinoff Interval" or "Interval-2"), and 13 November 2018 through 17 June 2019 (the post-Spinoff Interval" or "Interval-3"). As the result for each factor was qualitatively the same within each subinterval as it was for the total Class Period, the body of the report presents the Class Period results while subinterval results are presented in accompanying footnotes.

A. Trading Volume

- 108. Throughout the Class Period, EQT stock traded regularly and actively. On average, 4.2 million shares changed hands daily.¹¹⁹
- 109. EQT stock price and volume data are presented in Exhibit-4.¹²⁰
- 110. In addition to average daily trading volume, another volume metric to consider in assessing market efficiency is the percentage of outstanding shares that turn over each

Longstaff, *Journal of Financial and Quantitative Analysis*, 1993, pp. 381-397; and "Liquidity and Market Efficiency," by Tarun Chordia et al., *Journal of Financial Economics*, 2008.

¹¹⁹ Data obtained from CRSP. During Interval-1, the average daily trading volume for EQT stock was 4.1 million shares. During Interval-2, the average daily trading volume for EQT stock was 3.6 million shares. During Interval-3, the average daily trading volume for EQT stock was 5.2 million shares.

¹²⁰ In addition, for purposes of the numerosity analysis for Section 14(a) claims on behalf of former Rice Energy shareholders, as of the 13 November 2017 closing of the Acquisition, there were 228,033,281 million shares of Rice Energy stock outstanding. *See*, Rice Energy Inc., Form 10-Q, filed 12 November 2017.

- week. During the Class Period, the average weekly trading volume of EQT stock was approximately 20.8 million shares, or 8.86% of shares outstanding. 121,122
- 111. This level of trading activity exceeds the levels accepted by courts as being indicative of market efficiency for common stock. 123 In the *Cammer* case, the court cited the conclusion of Alan R. Bromberg and Lewis D. Lowenfels that "average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; 1% would justify a substantial presumption." 124 Thus, the trading volume for EQT stock during the Class Period was well above the threshold for a strong presumption of market efficiency.
- 112. In terms of both average daily trading volume and the percentage of outstanding shares traded weekly, the market for EQT stock was active. Consistent with the *Cammer* opinion, economic theory, and empirical research, the active trading volume in EQT stock is strong evidence of the efficiency of the market for EQT stock over the course of the Class Period.

B. Analyst Coverage and Other Avenues of Information Dissemination

1. Analyst Coverage

- 113. Securities analysts interpret and disseminate information about the companies they cover. They conduct research and provide valuation opinions, helping market participants acquire relevant information and understand the implications of that information for valuation and investment decisions. Consequently, securities analysts facilitate the flow of information and the digestion of information within the marketplace. These functions promote market efficiency.
- 114. I obtained analyst reports about EQT published during the Class Period by 19 different analyst firms: Barclays, BMO Capital, Cowen and Company, Credit Suisse, Deutsche

Estimated by averaging the daily ratio of the trading volume to the number of shares outstanding and multiplying by 5 (the number of trading days in a typical week).

¹²² During Interval-1, the average weekly trading volume was 11.70% of outstanding shares. During Interval-2, the average weekly trading volume was 6.96% of outstanding shares. During Interval-3, the average weekly trading volume was 10.13% of outstanding shares.

¹²³ Cammer, 711 F. Supp. at 1286.

¹²⁴ *Id.* at 1293.

- Bank, Evercore, Jefferies, JPMorgan, KLR Group, Ladenburg Thalmann, Macquarie, MKM Partners, Morgan Stanley, RBC Capital, Scotia Howard Weil, SunTrust Robinson, TD Securities, Wells Fargo, and Wolfe Research.¹²⁵
- 115. Transcripts of EQT's conference calls conducted during the Class Period reveal that at least nine additional analyst firms also followed the Company: Bank of America, Citigroup, Goldman Sachs, Heikkinen Energy Advisors, Mizuho, MUFG Securities, Stifel Nicolaus, The TCW Group, and Tudor, Pickering, Holt & Co. 126,127
- 116. Consequently, analysts from at least 28 firms followed the Company during the Class Period. 128
- 117. Coverage by 28 analyst firms is broad analyst coverage. Barber et al. [1994] found that coverage by one or two analysts strengthened the presumption of efficiency for a publicly traded stock.¹²⁹
- 118. Consistent with the *Cammer* opinion, financial economic principles, and published empirical research, the extensive coverage of EQT by professional securities analysts is compelling evidence of the efficiency of the market for EQT stock during the Class Period.

2. Institutional Ownership

119. Consistent with published empirical research, some courts have also considered high institutional ownership of a security to be indicative of market efficiency. 130

During Interval-1, at least 15 analyst firms issued reports on EQT. During Interval-2, at least 15 analyst firms issued reports on EQT. During Interval-3, at least 16 analyst firms issued reports on EQT.

¹²⁶ Conference call transcripts obtained from Thomson Eikon.

¹²⁷ During Interval-1, at least 6 additional analysts also followed EQT, according to Company conference calls. During Interval-2, at least 8 additional analysts also followed EQT, according to Company conference calls. During Interval-3, at least 4 additional analysts also followed EQT, according to Company conference calls.

¹²⁸ During Interval-1, at least 21 analysts followed EQT. During Interval-2, at least 23 analysts followed EQT. During Interval-3, at least 20 analysts followed EQT.

¹²⁹ "The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency," by Brad Barber et al., *The Journal of Corporation Law*, 1994, pp. 302 and 310-311.

¹³⁰ See, e.g., In re Alstom SA Sec. Litig., 253 F.R.D. 266, 280 (S.D.N.Y. 2008); Smilovits v. First Solar, Inc., No. CV12-00555-PHX-DGC (D. Ariz. Oct. 8, 2013).

- 120. Thomson Eikon compiles and provides institutional ownership data drawn from SEC Form 13-F filings. The filings and data show the holdings of EQT stock by major investment institutions as of the end of each calendar quarter. Major institutions are defined as firms or individuals that exercise investment discretion over the assets of others in excess of \$100 million. Large investment firms often employ financial analysts who conduct their own research on the stocks they buy.
- 121. According to SEC filings, at least 1,091 major institutions owned EQT stock during the Class Period. 131
- 122. This broad institutional ownership further supports a finding that the market for EQT stock was efficient throughout the Class Period.

3. News Coverage

- 123. Although the *Cammer* court focused on coverage by securities analysts, other courts have noted that news media including news reports on the internet or other electronic sources facilitate the flow of information to the marketplace, thereby promoting market efficiency. ¹³² In the case of EQT, news media coverage was extensive.
- 124. My search of the Factiva database found that at least 2,628 articles were published about the Company during the Class Period. 133
- 125. The articles I obtained from Factiva include published news articles and press releases.
- 126. Information about EQT was also disseminated in the form of SEC filings and Company conference calls.

According to the SEC filings compiled and reported by Thomson Eikon, 734 institutions held shares of EQT on at least one of the following quarterly reporting dates during Interval-1: 30 June 2017 and 30 September 2017. 940 institutions held shares of EQT on at least one of the following quarterly reporting dates during Interval-2: 31 December 2017, 31 March 2018, 30 June 2018, 30 September 2018. At least 587 institutions held shares of EQT on at least one of the following quarterly reporting dates during Interval-3: 31 December 2018 and 31 March 2019. Additionally, 1,091 institutions held shares of EQT on at least one of the following quarterly reporting dates during the Class Period: 30 June 2017, 30 September 2017, 31 December 2017, 31 March 2018, 30 June 2018, 30 September 2018, 31 December 2018, and 31 March 2019. There may have been additional institutions that held the Company's stock during the Class Period, Interval-1, Interval-2 or Interval-3, though not on the quarterly reporting dates.

¹³² See, e.g., Cheney v. Cyberguard Corp., 213 F.R.D. 484, 499 (S.D. Fla. 2003); In re Banc of California Sec. Litig., No. 8:17-cv-00118-AG-DFM (C.D. Cal. May 31, 2018).

¹³³ Based on a Factiva search in "All Sources" for articles published during the Class Period where "EQT Corp" was the "Company" search field parameter. There were at least 593; 1,234; and 833 articles published about the Company during Interval-1, Interval-2 and Interval-3, respectively.

127. Throughout the Class Period, information about EQT was readily available to market participants, provided by news media, analysts, and various other sources. This extensive news coverage is further evidence of the efficiency of the market for EQT stock.

C. Market Makers and Listing on the NYSE

- 128. The number of market makers is one of the factors that the *Cammer* court determined indicates market efficiency. Market makers are financial intermediaries who trade in a particular security, standing ready to buy and sell with individual investors, institutions, and other market makers. A large number of market makers implies that many market participants are trading that particular stock. A large number of market makers provides a high degree of liquidity and lowers transaction costs. With a large number of market makers, it is generally easy for investors to execute trades in a timely fashion and with reasonable transaction costs. These features preclude certain potential impediments to trading and conveyance of information and therefore promote market efficiency.
- 129. The *Cammer* court's understanding that the market-making infrastructure of a stock market is indicative of its efficiency, or lack thereof, makes the fact that EQT traded on the NYSE during the Class Period highly relevant. The NYSE is one of the most renowned, most liquid, and most efficient forums in the world for trading stocks. Securities on the NYSE are traded under the supervision of a lead market maker called the "Designated Market Maker." Designated Market Makers are responsible for maintaining a fair and orderly market for each security to which they are assigned. 135
- 130. In fact, citing Bromberg and Lowenfels, the *Cammer* court noted specifically the importance of an NYSE listing and the implications of such a listing for market efficiency, stating that market efficiency can reasonably be presumed for virtually all securities traded there.

¹³⁴ "Fact Sheet; Designated Market Makers," NYSE Euronext, 2012.

¹³⁵ "Organization and Functioning of Securities Markets," by Frank Reilly and Keith Brown, *Equity and Fixed Income CFA Program Curriculum*, Vol. 5, Pearson Custom Publishing, 2008.

"We think that, at a minimum, there should be a presumption – probably conditional for class determination – that certain markets are developed and efficient for virtually all the securities traded there: the New York and American Stock Exchanges, the Chicago Board Options Exchange and the NASDAQ National Market System."

Cammer, 711 F. Supp. at 1292 (quoting Bromberg and Lowenfels [1988], § 8.6).

- 131. The subject company in the *Cammer* case, Coated Sales, Inc., was listed on the NASDAQ, an over-the-counter market consisting of multiple competing market makers, using electronic systems to make quotes and effect trades.
- 132. At the time of the *Cammer* opinion, the NYSE and NASDAQ were distinctly separate exchanges; NASDAQ market makers did not make markets for NYSE-listed securities. However, since that time, the stock markets have evolved, and beginning in April 2005, NASDAQ enabled trading in most NYSE-listed securities on its market-making platform. This NASDAQ market-making activity is in addition to the principal market for listed securities on the NYSE.
- 133. With its NYSE listing, EQT stock had access to a highly developed network of brokers, with its market overseen by the NYSE Designated Market Maker. During the Class Period, there were at least 130 market makers for EQT stock, including well-known firms: Barclays, JPMorgan, and Morgan Stanley. 137, 138
- 134. That EQT stock traded on the NYSE and had numerous market makers is strong evidence that EQT stock traded in an efficient market throughout the Class Period.

D. Form S-3 Registration Eligibility

- 135. A company is eligible for Form S-3 registration when, among other things, it has filed Exchange Act reports for a specified length of time and has outstanding float above a certain sizable value.
- 136. At the time of the *Cammer* opinion, the conditions for Form S-3 registration were that a company had filed financial reports with the SEC for 36 months and had an outstanding

¹³⁶ "Nasdaq to Enable Customers to Trade NYSE Stocks," *Reuters*, 28 March 2005.

¹³⁷ Market maker data was obtained from Bloomberg.

¹³⁸ During Interval-1, at least 94 firms made a market in EQT common stock. During Interval-2, at least 105 firms made a market in EQT common stock. During Interval-3, at least 81 firms made a market in EQT common stock.

- float of \$150 million held by non-affiliates, or \$100 million of such float coupled with annual trading volume exceeding 3 million shares.¹³⁹
- 137. In 1992, the SEC revised its Form S-3 registration eligibility requirements to 12 months of filings and at least \$75 million of float. Since 2007, the SEC has allowed companies with less than \$75 million of float to file a Form S-3 registration as long as the company has been filing financial reports for at least a year, has "a class of common equity securities listed and registered on a national securities exchange, and the issuers do not sell more than the equivalent of one-third of their public float in primary offerings over any period of 12 calendar months." Despite the fact that the \$75 million float requirement has been relaxed, courts continue to focus on the \$75 million float benchmark when analyzing this *Cammer* factor. 141
- 138. The *Cammer* court observed that Form S-3 registration eligibility is indicative of market efficiency because the filing requirement ensures that financial data are available to market participants, and the "public float" requirement indicates that many market participants would have examined the information.¹⁴²

"Proposed Form S-3 recognizes the applicability of the efficient market theory to the registration statement framework with respect to those registrants which usually provide high quality corporate reports, including Exchange Act reports, and whose corporate information is broadly disseminated, because such companies are widely followed by professional analysts and investors in the market place. ... Because of the foregoing observations made by the SEC, the existence of Form S-3 status is an important factor weighing in favor of a finding that a market is efficient." *Cammer*, 711 F. Supp. at 1284-85.

"The 'public float' aspect of the Form S-3 requirements ensures that enough investors have in fact read the previously filed document."

Id. at 1285 (footnote omitted).

¹³⁹ "Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3," SEC Release No. 33-8878, 19 December 2007.

 $^{^{140}}$ Id

¹⁴¹ See, e.g., Vinh Nguyen v. Radient Pharm. Corp., 287 F.R.D. 563, 573 (C.D. Cal. 2012).

¹⁴² Cammer, 711 F. Supp. at 1284-85.

"Again, it is the number of shares traded and value of shares outstanding that involve the facts which imply efficiency."

Id. at 1287.

- 139. EQT satisfied both the original and revised float conditions for Form S-3 registration throughout the entire Class Period. EQT's average float during the Class Period of \$10.3 billion exceeded the threshold requirement for Form S-3 registration by a wide margin. 143
- 140. EQT's average float was more than 137 times the size required for Form S-3 registration.
- 141. Although the Company did not file any Form S-3 registration statement during the Class Period, EQT filed a Form S-4 registration statement during the Class Period. Typically, a company would file a Form S-4 registration if it were to issue securities in conjunction with a merger, acquisition, or other similar transactions. The Form S-4 registration requires, by reference, the same size and reporting requirements as the Form S-3. In connection with the Acquisition, the Company filed a Form S-4 registration statement on 27 July 2017. The Port S-4 registration statement on 27 July 2017.
- 142. Consistent with the *Cammer* opinion, EQT's eligibility for Form S-3 registration is evidence of the efficiency of the market for its stock throughout the Class Period.

E. Krogman Factors

143. In addition to evaluating market efficiency using the *Cammer* factors, I also examined EQT stock and its market with respect to the three *Krogman* factors.

EQT's average float during Interval-1 of \$10.7 billion exceeded the threshold requirement for Form S-3 registration by a wide margin. EQT's average float during Interval-2 of \$13.3 billion exceeded the threshold requirement for Form S-3 registration by a wide margin. EQT's average float during Interval-3 of \$4.9 billion exceeded the threshold requirement for Form S-3 registration by a wide margin.

¹⁴⁴ https://www.sec.gov/about/forms/forms-4.pdf

¹⁴⁵ EQT Corporation, Form S-4, filed 27 July 2017.

1. Market Capitalization

- 144. Over the course of the Class Period, the Company's market capitalization ranged between \$4.0 billion and \$16.7 billion, making it one of the largest companies in the United States and the world.¹⁴⁶
- 145. Over the entire Class Period, the market capitalization averaged \$10.4 billion, ¹⁴⁷ making EQT larger than 91% of all other publicly traded companies in the United States, as measured by market capitalization. ^{148,149}
- 146. Consistent with the *Unger* and *Krogman* opinions, the Company's sizeable market capitalization throughout the Class Period is further evidence of the efficiency of the market for EQT stock.

2. Float

147. Over the course of the Class Period, the Company's public float ranged between \$4.0 billion and \$16.6 billion. The float averaged \$10.3 billion over the entire Class Period. Float excludes shares held by insiders and affiliated corporate entities, yet the

¹⁴⁶ During Interval-1, EQT's market capitalization ranged between \$8.8 billion and \$11.6 billion. During Interval-2, EQT's market capitalization ranged between \$7.9 billion and \$16.7 billion. During Interval-3, EQT's market capitalization ranged between \$4.0 billion and \$5.5 billion.

During Interval-1, EQT's market capitalization averaged \$10.8 billion. During Interval-2, EQT's market capitalization averaged \$13.4 billion. During Interval-3, EQT's market capitalization averaged \$5.0 billion.

¹⁴⁸ For the entire Class Period, the market capitalizations for all other stocks were computed as averaged month-end values using data from CRSP. Size percentiles were computed using these averaged month-end data from CRSP for June 2017 through May 2019. The 1st percentile contains the largest 1% of all public companies listed on the NYSE, NASDAQ, and ARCA, while the 99th percentile contains the smallest 1%. EQT share data were obtained from SEC fillings.

During Interval-1, EQT's average market capitalization was larger than at least 91% of all other publicly traded companies in the United States, computed using averaged month-end data from CRSP for June 2017 through October 2017. During Interval-2, EQT's average market capitalization was larger than at least 92% of all other publicly traded companies in the United States, computed using averaged month-end data from CRSP for November 2017 through October 2018. During Interval-3, EQT's average market capitalization was larger than at least 85% of all other publicly traded companies in the United States, computed using averaged month-end data from CRSP for November 2018 through May 2019.

¹⁵⁰ During Interval-1, EQT's float ranged between \$8.8 billion and \$11.5 billion. During Interval-2, EQT's float ranged between \$7.8 billion and \$16.6 billion. During Interval-3, EQT's float ranged between \$4.0 billion and \$5.5 billion.

¹⁵¹ During Interval-1, EQT's float averaged \$10.7 billion. During Interval-2, EQT's float averaged \$13.3 billion. During Interval-3, EQT's float averaged \$4.9 billion.

- Company's average float was still larger than the total market capitalizations (which includes shares held by insiders and affiliates) of at least 91% of all other publicly traded companies in the U.S. ^{152,153} The size of the Company's float therefore satisfied the second *Krogman* factor for market efficiency.
- 148. Float can also be analyzed as a percentage of total shares outstanding, in addition to value and number of shares. On average during the Class Period, there were 240.7 million shares in EQT's float and 242.0 million shares outstanding, resulting in an average float of 99.48% of shares outstanding. That is, the vast majority of EQT's issued shares were available for trading during the Class Period.
- 149. The Company's float satisfied the second *Krogman* factor for market efficiency. The very large size and high percentage of the Company's float are indicative of the efficiency of the market for EQT stock throughout the Class Period.

3. Bid-Ask Spread

- 150. I obtained from CRSP the daily closing bid and ask quotes for EQT stock during the Class Period.
- 151. I measured the percentage bid-ask spread as the difference between the bid and ask quotes divided by the average of the ask and bid quotes, which is the standard way of measuring percentage bid-ask spreads in the finance literature. Exhibit-4 presents bid and ask price data for EQT stock.

¹⁵² This calculation is based upon averaged month-end data from CRSP for June 2017 through May 2019. Company share data were obtained from SEC filings.

During Interval-1, EQT's average float was larger than at least 91% of all other publicly traded companies in the United States, using averaged month-end data from CRSP for June 2017 through October 2017. During Interval-2, EQT's average float was larger than at least 92% of all other publicly traded companies in the United States, using averaged month-end data from CRSP for November 2017 through October 2018. During Interval-3, EQT's average market capitalization was larger than at least 85% of all other publicly traded companies in the United States, computed using averaged month-end data from CRSP for November 2018 through May 2019.

¹⁵⁴ During Interval-1, EQT's average float as a percentage of shares outstanding was 99.41%. During Interval-2, EQT's average float as a percentage of shares outstanding was 99.54%. During Interval-3, EQT's average float as a percentage of shares outstanding was 99.41%.

¹⁵⁵ "Price Reversals, Bid-Ask Spreads, and Market Efficiency," by Allen Atkins and Edward Dyl, *Journal of Financial and Quantitative Analysis*, Vol. 25, No. 4, 1990, pp. 535-47.

- 152. The average bid-ask spread for EQT stock over the course of the Class Period was 0.03%. By comparison, the average month-end bid-ask spread over the course of the Class Period for all stocks in the CRSP database, which comprises all stocks traded on U.S. exchanges, was 0.55%. 156,157 The EQT stock bid-ask spread was therefore narrower than the mean level among all stocks traded on U.S. exchanges.
- 153. In dollar terms, the EQT stock bid-ask spread during the Class Period averaged \$0.01 per share. For all stocks in the CRSP database, the average bid-ask spread was \$0.12 during the Class Period. 158,159 Again, EQT's bid-ask spread was much narrower than the average.
- 154. The average bid-ask spread in the market for EQT stock over the course of the Class Period was well below the typical bid-ask spreads exhibited by other publicly traded stocks in the United States. This narrow bid-ask spread in the market for EQT stock supports a conclusion of market efficiency.

VIII. EMPIRICAL DEMONSTRATION OF MARKET EFFICIENCY

155. The fifth *Cammer* factor is empirical evidence showing a cause-and-effect relationship between the release of company-specific information and movements in the security's

¹⁵⁶ This calculation is based upon averaged month-end data from CRSP for June 2017 through May 2019.

During Interval-1, EQT's bid-ask spread averaged 0.02%, while the average bid-ask spread for all stocks in the CRSP database was 0.54%, computed using averaged month-end data from CRSP for June 2017 through October 2017. During Interval-2, EQT's bid-ask spread averaged 0.02%, while the average bid-ask spread for all stocks in the CRSP database was 0.52%, computed using averaged month-end data from CRSP for November 2017 through October 2018. During Interval-3, EQT's bid-ask spread averaged 0.05%, while the average bid-ask spread for all stocks in the CRSP database was 0.62%, computed using averaged month-end data from CRSP for November 2018 through May 2019.

¹⁵⁸ This calculation is based upon averaged month-end data from CRSP for June 2017 through May 2019.

During Interval-1, EQT's bid-ask spread averaged \$0.01, while the average bid-ask spread for all stocks in the CRSP database was \$0.10, computed using averaged month-end data from CRSP for June 2017 through October 2017. During Interval-2, EQT's bid-ask spread averaged \$0.01, while the average bid-ask spread for all stocks in the CRSP database was \$0.12, computed using averaged month-end data from CRSP for November 2017 through October 2018. During Interval-3, EQT's bid-ask spread averaged \$0.01, while the average bid-ask spread for all stocks in the CRSP database was \$0.12, computed using averaged month-end data from CRSP for November 2018 through May 2019.

- price.¹⁶⁰ The *Cammer* court noted that a demonstration of a cause-and-effect relationship "would be helpful to a plaintiff seeking to allege an efficient market."¹⁶¹
- 156. While the *Cammer* court stated that the empirical factor is "helpful" and "convincing," more recently, in *In re Advance Auto Parts, Inc. Sec. Litigation*, the Third Circuit emphasized, consistent with financial principles and published empirical findings, that the empirical factor is not necessary to establish market efficiency, especially when the other factors are satisfied and circumstances are not unusual.

"The Third Circuit stated that the fifth factor is 'normally the most important factor in an efficiency analysis.' *DVI*, 639 F.3d at 634. But the *Cammer* factors are an 'analytical tool' and not a 'checklist.' *Hull v. Global Dig. Sol., Inc.*, 2018 WL 4380999, at *6 (D.N.J. Sept. 14, 2018). Thus, as the Third Circuit also stated, the utility of the *Cammer* factors 'depend[s] on the circumstances.' *DVI*, 639 F.3d at 634 n. 16. Accordingly, '[c]ourts have rejected the idea that the fifth *Cammer* factor is necessary to establish market efficiency.' *W. Palm Beach Police Pension Fund v. DFC Global Corp.*, 2016 WL 4138613, at *12 (E.D. Pa. Aug. 4, 2016); *Di Donato v. Insys Therapeutics, Inc.*, 333 F.R.D. 427, 441-42 (D. Ariz. 2019) ('Plaintiffs may prove market efficiency without satisfying the fifth *Cammer* factor'); *Carpenters Pension Trust Fund of St. Louis v. Barclays PLC*, 310 F.R.D. 69, 86 (S.D.N.Y. 2015) ('[W]hether a plaintiff can satisfy *Cammer* 5 is not dispositive')."

In re Advance Auto Parts, Inc. Sec. Litigation., No. 18-212, 2020 WL 6544637, at *6 (D. Del. Nov. 6, 2020).

- 157. The Second Circuit arrived at the same conclusion in *Waggoner v. Barclays PLC*, 875 F.3d 79 (2d Cir. 2017). In *Waggoner v. Barclays PLC*, the Second Circuit stated that "a plaintiff seeking to demonstrate market efficiency need not always present direct evidence of price impact through event studies." ¹⁶²
- 158. This understanding that the empirical factor is generally not needed to prove market efficiency when the other factors are satisfied has also been articulated by other courts in other circuits. For example, the District of Arizona recently found that the plaintiffs in *Richard Di Donato v. Insys Therapeutic, Inc.* "proved the prerequisites for invoking the

¹⁶⁰ Cammer, 711 F. Supp. at 1291.

¹⁶¹ Cammer, 711 F. Supp. at 1287.

¹⁶² Waggoner v. Barclays PLC, 875 F.3d at 97.

fraud-on-the-market presumption of reliance under *Basic*, and Defendants have not rebutted it."¹⁶³ In that decision, the *Insys* court, citing other circuit court decisions, concluded that "[e]vidence of the market's reaction to unexpected corporate events or financial disclosures is usually important, but not required in every case."¹⁶⁴

"The Second, Fourth, Fifth, and Eleventh Circuits have instructed that the Cammer factors serve only as a guide for determining market efficiency to be applied in a case-by-case basis in addition to other considerations and that, while important in certain cases, the fifth Cammer factor is not a mandatory prerequisite in every case for finding market efficiency. Waggoner v. Barclays PLC, 875 F.3d 79, 97-98 (2d Cir. 2017); Gariety v. Grant Thornton, LLP, 368 F.3d 356, 368 (4th Cir. 2004); Unger v. Amedisys Inc., 401 F.3d 316, 323 (5th Cir. 2005); Bell v. Ascendant Solutions, Inc., 422 F.3d 307, 313, 316 (5th Cir. 2005); Local 703, I.B. of T. Grocery & Food Employees Welfare Fund v. Regions Financial Corp., 762 F.3d 1248, 1255-56 (11th Cir. 2014). Although these circuit courts require proof and thorough analysis of market efficiency in context, they disclaim rigid adherence to a bright line test. The parties have not cited, and the Court has not found, contrary authority."

Di Donato v. Insys Therapeutics, Inc., 333 F.R.D. 427, 438 (D. Ariz. 2019).

159. Nonetheless, significant stock price reactions to new valuation-relevant information do demonstrate market efficiency and are compelling empirical evidence of market efficiency. The empirical analysis that I conducted provides such evidence. EQT stock exhibited statistically significant stock price reactions to Company announcements. The stock price movements following earnings announcements were much more frequently statistically significant than were the stock price movements on all other more ordinary days. This result proves that EQT stock responded to announcements of Company information. There was a cause-and-effect relationship between the release of new information and changes in EQT's stock price, which demonstrates and therefore indicates market efficiency.

¹⁶³ Di Donato v. Insys Therapeutics, Inc., 333 F.R.D. 427, 448 (D. Ariz. 2019).

¹⁶⁴ *Id.*, p. 14.

A. Event Studies

160. Event studies test whether a security responds to new information. Event study analysis is one of the most commonly used analytic methodologies employed by finance researchers to assess market efficiency. Renowned financial economist and Nobel Laureate Professor Eugene Fama attests:

"The cleanest evidence on market-efficiency comes from event studies, especially event studies on daily returns. When an information event can be dated precisely and the event has a large effect on prices, the way one abstracts from expected returns to measure abnormal daily returns is a second-order consideration. As a result, event studies can give a clear picture of the speed of adjustment of prices to information."
"Efficient Capital Markets: II," by Eugene Fama, *The Journal of Finance*, 1991, p. 1607.

- 161. Campbell et al. [1997] present a useful description and examples of the event study methodology and write about how it is generally accepted and widely used in academic research. Gold et al. [2017] describe how the methodology is generally accepted and widely used in forensic applications. for
- 162. An event study measures how much a security price rises or falls in response to new, company-specific information. One component of an event study is statistical regression analysis that determines how much of a security's price change is explained by market and industry sector factors, rather than company-specific information, so that those influences can be statistically factored out. The portion of a security's price change that cannot be attributed to market or sector factors is called the residual security price movement or "residual return." The event study isolates the residual return and also tests whether the residual return can reasonably be explained as merely a random fluctuation.
- 163. If a security's residual return is statistically significant, it indicates that the security price movement cannot be attributed to market factors, sector factors, or to random volatility, but rather was caused by new, company-specific information. A significant stock price

¹⁶⁵ "Event-Study Analysis," by John Campbell et al., Chapter 4 of *The Econometrics of Financial Markets*, Princeton University Press, 1997.

¹⁶⁶ "Federal Securities Acts and Areas of Expert Analysis," by Kevin Gold et al., Chapter 27 of the *Litigation Services Handbook: The Role of the Financial Expert*, 6th Edition, edited by Roman Weil et al., John Wiley & Sons, Inc., 2017.

reaction to the release of information demonstrates market efficiency. It is proof that the stock price responded to information.

B. Collective Event Study Test

1. Collective Event Study Test Design and Methodology

- 164. If a company's news events collectively exhibit a significantly greater frequency of statistically significant stock price movements than do non- or lesser-news days, this finding would establish that the stock consistently reacts to information and is therefore compelling empirical evidence that the stock trades in an efficient market. One can test for market efficiency, therefore, by assessing collectively whether the stock exhibits statistically significant returns more often on days with greater information flow than on more typical days with less news. If the frequency of significant stock price movements is greater among a collection of news days than among all other non- or lesser-news days, this result would establish that there is a cause-and-effect relationship between the flow of information and security price movements, which indicates market efficiency.
- 165. The group of eight testifying finance experts (including myself) who wrote an *amici* curiae brief for *Halliburton II* recognized collective tests as valid tests of market efficiency. We explained that an empirical analysis of market efficiency may be performed as follows:

"[D]ivide the days of the class period *ex ante* into expected news days and non-news days before examining price movements, and then compare the stock's price movements in the two categories to see if there is a statistically significant difference in price movement between the two categories. If the study finds a difference in price movement between the two sample sets (*e.g.*, earnings-release dates versus non-earnings-release dates), that is statistical evidence that the market incorporates new public information into the price of the stock."

Brief of Testifying Economists as *Amici Curiae* in Support of Respondent, *Halliburton Co. and David Lesar v. Erica P. John Fund, Inc.*, 5 February 2014, p. 10.

166. I conducted a collective event study analysis for EQT stock, focusing on the Company's earnings announcements, comparing those information events to all other days during the Class Period. According to the finance literature, the flow of company-specific

information is elevated on earnings announcement dates.¹⁶⁷ A greater incidence of significant stock returns on earnings announcement dates, therefore, would show that the EQT stock reacted to information, which is the essence of informational market efficiency.

2. Collective Event Study Tests of Market Efficiency Are Widely Used and Accepted by Courts

167. Collective event study tests that compare price movements on news days to non- or lesser-news days for purposes of assessing market efficiency are widely used in securities cases, are presented in the literature, and have been accepted by courts.

"We start by examining the statistical properties of the cause-and-effect relationship between stock returns and disclosures when there is no link. In other words, the daily stock prices do not reflect full information and that significant abnormal returns are not associated with the disclosure of information. It then logically follows that, for this security we will observe that: (a) the security's returns are determined arbitrarily or in a random fashion, and (b) there will be no link between disclosures and significant abnormal returns, in other words, disclosures and significant returns are randomly distributed. To test this hypothesis, we have established a novel statistical method employing a generally accepted approach called 'bootstrap testing.' Both the DVI and HealthSouth courts have accepted the bootstrap approach. We have created test statistics to determine if the actual observations are likely to have been generated in a random fashion. If information disclosures are not linked to abnormal returns, then we would not expect there to be a statistically significant relationship that distinguishes those days when there are or are not disclosures of information from those days when there are or are not abnormal returns. In other words, there is no cause-and-effect correlation because the distributions of abnormal returns and disclosures are both random events."

"The Curious Incident of the Dog That Didn't Bark and Establishing Cause-and-Effect in Class Action Securities Litigation," by Michael Hartzmark and H. Nejat Seyhun, *Va. L. & Bus. Rev.*, Vol. 6, No. 3, 2012, pp. 458-59 (footnote omitted).

"In terms of the application of the EMH [Efficient Market Hypothesis] to securities class actions, an important question is whether any allegedly fraudulent information would cause a change in the issuer's stock price. However, because the market does not know (at the time) whether any

¹⁶⁷ Financial Reporting: An Accounting Revolution, 3rd Edition, by William Beaver, Pearson, 1998, p. 38; and "Earnings Management to Exceed Thresholds," by François Degeorge et al., *Journal of Business*, Vol. 72, No. 1, 1999, p. 1.

information it receives is legitimate or fraudulent, this question can be answered by testing whether the market for a particular issuer's stock responds to news more generally. If it does, then one is more confident that the stock price would be affected by any material false information or would have responded to material omitted information. If the stock price does not generally respond to news, then the presumption should then become that the stock was not affected by any false news and may not have responded to allegedly omitted information. Because stock prices move all the time, one must compare the movements in response to news stories with a control group of prices."

"The 'Less Than' Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-on-the-Market Cases," by Paul Ferrillo et al., *St. John's L. Rev.*, Vol. 78:81, 2004, p. 119.

168. Courts have accepted collective event study tests as valid tests for establishing market efficiency and have acknowledged their "routine use" for this purpose.

"[C]ourts have ... endorsed the comparison test that [Plaintiffs' expert] used. See, e.g., In re Alstom SA Sec. Litig., 253 F.R.D. 266, 280 (S.D.N.Y. 2008). This test 'involves comparing the percentage of days with news that have a statistically significant price movement to the percentage of days without news that have a statistically significant price movement.' Paul A. Ferrillo et al., The 'Less Than' Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-on-the-Market Cases, 78 St. John's L. Rev. 81, 120 (2004). If the stock price is significantly more likely to change on News Days than on Non-News Days, that suggests a causal relationship between material news and the stock price."

McIntire v. China MediaExpress Holdings, Inc., 38 F. Supp. 3d 415, 430 (S.D.N.Y. 2014).

"There is no dispute that z-tests are commonly used and widely accepted statistical tools. ... [Defendant's expert] contends that, because the article was not peer-reviewed, a z-test cannot be used to show market efficiency. Were Feinstein using a novel or questionable statistical technique, the Court would place more weight on the absence of peer review. But it is not necessary for every application of a commonly used statistical technique to be peer-reviewed. Indeed, the elegance of statistical methods is that they can be applied to data sets of varying substantive significance, from rates of emphysema to transactions on modern securities markets. Because the Court is convinced that the z-test is a well-established and sound statistical technique, the lack of peer review does not seriously undermine Feinstein's application of the z-test."

In re Petrobras Sec. Litig., 312 F.R.D. 354, 369 (S.D.N.Y. 2016).

"Plaintiffs' expert, conducted an event study using Tidel's trading data. He identified two-day periods in which information pertaining to Tidel was released to the public and separated those two days from other two day periods in which there was no public information pertaining to Tidel. The periods were classified into 'information' versus 'non-information days.' Both experts analyzed the price changes on the 'information days' and the 'non-information days' and compared the results of the two groups. Professor Pettit concluded that the price changes on information days versus non-information days was statistically significant, meaning there was a related cause and effect relationship between the release of information pertaining to Tidel and Tidel's stock price. Simply put, Professor Pettit's tests indicated that Tidel's stock price reacted within a two-day window to news releases concerning Tidel, which indicates market efficiency."

Lehocky v. Tidel Techs., Inc., 220 F.R.D. 491, 506 (S.D. Tex. 2004) (footnote omitted).

"Additionally, experts routinely use, and courts accept, collective tests on the earnings and guidance dates like the one utilized by Bettencourt. *See In re NII Holdings*, 311 F.R.D. [401, 412 (E.D. Va. 2015)] (finding expert's collective test of company's earnings announcements objective and reliable)."

City of Cape Coral Municipal Firefighters' Ret. Plan v. Emergent Biosolutions, Inc., HQ, 322 F. Supp. 3d 676, 688 (D. Md. 2018).

3. Selection of Earnings Announcement Dates

169. My collective event study analysis focused on EQT's earnings announcements, during which the Company reported its financial results and other important Company news. A company's financial results are among the most important considerations to investors assessing the value of its securities. While not every earnings announcement contains new, unexpected, highly impactful valuation information, the finance literature notes that such information more frequently arrives on earnings announcement dates than on ordinary dates. 168

¹⁶⁸ Financial Reporting: An Accounting Revolution, 3rd Edition, by William Beaver, Pearson, 1998, p. 38; and "Earnings Management to Exceed Thresholds," by François Degeorge et al., Journal of Business, 1999, p. 1.

"No other figure in the financial statements receives more attention by the investment community than earnings per share. The relationship between accounting earnings and security prices is probably the single most important relationship in security analysis, and its prominence is reflected in the attention given to price-earnings ratios."

Financial Reporting: An Accounting Revolution, 3rd Edition, by William Beaver, Pearson, 1998, p. 38.

"Analysts, investors, senior executives, and boards of directors consider earnings the single most important item in the financial reports issued by publicly held firms."

"Earnings Management to Exceed Thresholds," by François Degeorge et al., *Journal of Business*, 1999, p. 1.

"... find unequivocal evidence that earnings announcements convey more information than is conveyed in non-announcement periods."

"The Information Content of Earnings Announcements: New Insights from Intertemporal and Cross-Sectional Behavior," by William Beaver et al., *Review of Accounting Studies*, 2018, p. 129.

"Beginning with Ball and Brown (1968) and Beaver (1968), a large literature documents that earnings announcements have significant information content for investors. Subsequent literature explores whether and how the information content of earnings announcements varies across time and across firms."

"Increased Market Response to Earnings Announcements in the 21st Century: An Empirical Investigation," by William Beaver et al., *Journal of Accounting and Economics*, 2020, p. 1.

- 170. Numerous well-known and highly regarded academic studies (for example, Beaver [1968], Ball and Brown [1968], Ball [1978], Watts [1978], Patell and Wolfson [1984], and Ball and Kothari [1991]) have specifically examined stock price movements caused by earnings announcements and concur that earnings announcements are generally important information events.
- 171. The Company announced earnings in press releases, which were also included in Form 8-K filings. The press releases were used to date the announcement events. As all earnings announcements during the Class Period occurred prior to the open on respective trading days, the day of the announcement is also the first trading day on which the stock could have responded. In an efficient market, a stock may react to news on a single day or multiple days, as what is considered a reasonably prompt reaction depends on the

timing and complexity of the news.¹⁶⁹ Earnings announcements, however, tend to be the most routinely analyzed news, so the reaction in an efficient market would be expected to begin in the first trading day following the release. Consequently, for purposes of assessing market efficiency, the effective earnings announcement event dates I tested were the same as the announcement dates, as shown in Table-1.

Table-1: Earnings Announcement Event Dates

| _ | Announcement Date | Release Time | Effective Event Date |
|-----|-----------------------------|--------------|-----------------------------|
| [1] | Thursday, July 27, 2017 | 6:31 AM | Thursday, July 27, 2017 |
| [2] | Thursday, October 26, 2017 | 6:30 AM | Thursday, October 26, 2017 |
| [3] | Thursday, February 15, 2018 | 6:30 AM | Thursday, February 15, 2018 |
| [4] | Thursday, April 26, 2018 | 6:30 AM | Thursday, April 26, 2018 |
| [5] | Thursday, July 26, 2018 | 6:30 AM | Thursday, July 26, 2018 |
| [6] | Thursday, October 25, 2018 | 6:16 AM | Thursday, October 25, 2018 |
| [7] | Thursday, February 14, 2019 | 6:30 AM | Thursday, February 14, 2019 |
| [8] | Thursday, April 25, 2019 | 6:30 AM | Thursday, April 25, 2019 |

Sources:

4. A Caveat About Non-Significant Security Price Movements

172. It is important to note that an event study tests the joint hypothesis that (i) the stock trades in an efficient market and (ii) the appropriate valuation impact of the information disseminated is of such a large magnitude as to exceed the threshold for statistical significance. A finding of statistical significance indicates market efficiency, but a finding of non-significance does not necessarily establish inefficiency, because a modest

^{[1] &}quot;EQT Reports Second Quarter 2017 Earnings," Business Wire, 27 July 2017, 6:31 AM.

^{[2] &}quot;EQT Reports Third Quarter 2017 Earnings," Business Wire, 26 October 2017, 6:30 AM.

^{[3] &}quot;EQT Reports Fourth Quarter and Year-End 2017 Earnings," Business Wire, 15 February 2018, 6:30 AM.

^{[4] &}quot;EQT Reports First Quarter 2018 Results," Business Wire, 26 April 2018, 6:30 AM.

^{[5] &}quot;EQT Reports Second Quarter 2018 Results," Business Wire, 26 July 2018, 6:30 AM.

^{[6] &}quot;EQT Reports Third Quarter 2018 Results," Business Wire, 25 October 2018, 6:16 AM.

^{[7] &}quot;EQT Reports Fourth Quarter and Year-End 2018 Results," Business Wire, 14 February 2019, 6:30 AM.

^{[8] &}quot;EQT Reports First Quarter 2019 Results," Business Wire, 25 April 2019, 6:30 AM.

¹⁶⁹ "The Intraday Speed of Adjustment of Stock Prices to Earnings and Dividend Announcements," by Patell James and Mark Wolfson, *Journal of Financial Economics*, 1984.

- non-significant stock price reaction may be the appropriate and efficient stock price reaction to a particular announcement.¹⁷⁰
- 173. For example, if a company reports business results that are in line with the expectations of analysts and investors, even though the announcement would be important, the mix of information may not have changed sufficiently on that date to warrant a statistically significant stock price change. The release of important information consistent with market expectations would maintain the price, whereas important information inconsistent with expectations would be expected to cause a change in the stock price. Similarly, if a misrepresentation is made alongside countervailing confounding news that should impact the stock price in the opposite direction, the mix of news may cause no statistically significant stock price reaction in an efficient market. In these examples, a modest stock price movement, or even no movement at all, may be the appropriate stock price response in an efficient market. In such cases, the event study finding that the stock return was non-significant would not indicate inefficiency. In fact, in such cases, the non-significant stock price movement would show that the stock behaved as it should in an efficient market. The such cases are such as the such cases are such as the such cases, the non-significant stock price movement would show that the stock behaved as it should in an efficient market.
- 174. Similarly, when a company deceives analysts and investors by concealing important information, the effect of the concealment would generally not be a significant stock price movement at the time of the concealment and over its duration. The concealment

Note also, "Statistical significance may be part of an expert's reasoning, but the expert should also consider all possible explanations for a scientific conclusion, including study design and the underlying scientific processes that affect the result. To the extent there are other studies or data that contradict the expert's conclusion, the expert should not dismiss that other data merely because it is not statistically significant." ("New Views on Statistical Significance Affect Expert Testimony," by Josh Becker et al., *Law360.com*, 23 May 2019.)

¹⁷⁰ See, e.g., "Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias," by Alon Brav and J.B. Heaton, *Wash. U. L. Rev.*, Vol. 93, No. 2, 2015, p. 602.

¹⁷¹ Confounding information is simultaneously released unrelated company-specific information.

¹⁷² Of note, it is becoming increasingly recognized in the literature that the 95% confidence level is not the only statistical finding dispositive of correlation and causation. While significance at the 95% confidence level provides strong proof that the information conveyed by the disclosure event caused the price reaction, it is also well-known and now generally accepted that significance at a less than the 95% confidence level is informative as well. Significance at less than the 95% confidence level certainly does not disprove that an event impacted the stock price. *See, e.g.*, "Hypothesis tests are usually conducted using a type I error rate (probability of rejecting a true null) of 5%, but there is no good reason why 5% should be preferred to some other percentage. The father of statistics, R.A. Fisher, suggested it in an obscure 1923 paper, and it has been blindly followed ever since. Rosnow and Rosenthal (1989, p. 1277) recognize that 'surely, God loves the .06 as much as the .05." (*A Guide to Econometrics*, by Peter Kennedy, 6th Edition, Blackwell Publishing, 2008, p. 60).

- would maintain the mix of information as it was previously, so the price impact would be maintenance of the price level where it was previously.
- 175. When selecting events for a collective event study testing market efficiency, each event need not be so momentous as to be expected to elicit a significant stock price reaction. Rather, the group of events is selected such that the group as a whole is characterized as having higher information flow than ordinary days. One would not necessarily expect all or even most of the event returns in a collective event study to be statistically significant. In a collective event study, statistical testing establishes whether the incidence rate of statistical significance within the event group is elevated compared to all ordinary dates. If so established, the finding proves the existence of a cause-and-effect relationship between information flow and stock price reaction.

5. Isolating the Impact of Company-Specific Information

- 176. One component of event study analysis determines how much of the Company's stock return following each event was driven by market and industry sector factors, as opposed to Company-specific information, so that those influences can be statistically factored out. The method, which is generally accepted and widely used in econometric modeling, involves running a regression to determine how the price of a company's stock typically behaved in relation to the overall market and its industry sector, and then using the regression model to determine how much of each event day's actual return is explained by those market and sector effects. The portion of the stock return that is attributable to market and sector factors is called the explained return.
- 177. The explained return is then subtracted from the actual return to isolate the residual return, which is the stock's return after controlling for market and industry sector effects.
- 178. I ran regressions modeling the return of EQT stock as a function of 1) a constant term, 2) the return of the overall stock market, and 3) a sector index return.
- 179. With respect to the estimation periods over which I ran the regressions, I conducted the regression analysis two different ways. I ran the regression over the entire two-year Class Period as a single regression, but I also ran the regression separately on each of the Class Period's three subintervals. As it turned out, the collective test results (frequency of

- significant earnings announcements, and significantly greater frequency than among ordinary days) were identical for the two approaches.
- 180. As the market for EQT stock satisfied the first four *Cammer* factors and all three *Krogman* factors by wide margins in all three subintervals, it is clear that the structure of the market for EQT stock did not change across subintervals. These compelling indications of efficiency were common across all three subintervals. However, as EQT's business may have changed with the Acquisition and the Spinoff, it is possible that the stock price dynamics may have changed from one subinterval to the next. Indeed, the Company changed the composition of its custom sector index after each of these organizational transactions. Consequently, estimating the regression separately on each subinterval, and testing the earnings events and ordinary days for statistical significance within each subinterval using the regression model estimated over that respective subinterval, is an appropriate approach, which I undertook. As noted, however, the collective test results were nonetheless robust to the alternative regression estimation periods.
- 181. Testing events using a regression estimated over a surrounding time interval is consistent with widely used and generally accepted practice in event study analysis.
 - "Three general choices for the placement of an estimation window are before the event window, surrounding the event window, and after the event window."
 - "Materiality and Magnitude: Event Studies in the Courtroom," by David Tabak and Frederick Dunbar, *Litigation Services Handbook: The Role of the Financial Expert*, 3rd Edition, edited by Roman Weil et al., John Wiley & Sons, Inc., 2001, p. 19.5.
- 182. For the overall stock market factor, I used the CRSP NYSE/AMEX/NASDAQ/ARCA Market Index (the "Market Index"), which is a generally accepted and widely used measure of the overall stock market performance. The Market Index appropriately incorporates payment of dividends by the constituent companies.
- 183. For the sector factor I constructed a value-weighted index (the "Sector Index") from the stock returns of the same collection of companies that EQT identified as its Self-Constructed Peer Group ("Peer Group"). The Company updated the constituents of its "Peer Group" each year, as reported in its annual Form 10-K, explaining that the changes

were made "to reflect the change in size and business operations of the Company." ¹⁷³ I accordingly updated the group of constituent companies comprising the Sector Index, revising the constituents following the Acquisition and Spinoff, respectively, as of the dates of the Acquisition and Spinoff completions, which dates mark the transition from one subinterval to the next. Table-2 presents the constituents of the Sector Index for each of the subintervals.

¹⁷³ EQT updated its 2018 peer group "to reflect the change in size and business operations of the Company." (EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019, p. 42). EQT updated its 2019 peer group "to include only companies whose natural gas production accounts for greater than 30% of their total production volume," and excluded "companies that fell outside a relative range of market capitalization size when compared to the Company post-Separation." (EQT Corporation, Form 10-K for the fiscal year ended 31 December 2019, filed 27 February 2020, p. 41).

Table-2: Peer Group Constituents Identified By EQT In Annual Form 10-Ks

| _ | EQT Form 10-K for the Fiscal Year Ended | | | |
|-----|---|--|------------------------|--|
| - | 2017 | 2018 | 2019 | |
| [1] | | Anadarko Petroleum Corp | | |
| [2] | Antero Resources Corp | Antero Resources Corp | Antero Resources Corp | |
| [3] | | | | |
| [4] | Cabot Oil & Gas Corp | Cabot Oil & Gas Corp | Cabot Oil & Gas Corp | |
| [5] | Chesapeake Energy Corp | Chesapeake Energy Corp | Chesapeake Energy Corp | |
| [6] | Cimarex Energy Co | Cimarex Energy Co | Cimarex Energy Co | |
| [7] | Concho Resources Inc. | Concho Resources Inc. | | |
| [8] | CONSOL Energy Inc. | CNX Resources Corp | CNX Resources Corp | |
| [9] | Continental Resources Inc. | ontinental Resources Inc. Continental Resources Inc. | | |
| 10] | Devon Energy Corp | Devon Energy Corp | | |
| 11] | | Diamondback Energy Inc. | | |
| 12] | EXCO Resources Inc. | | | |
| 13] | | Encana Corp | Encana Corp | |
| 14] | Energen Corp | | | |
| 15] | EOG Resources Inc. | EOG Resources Inc. | | |
| 16] | | | Gulfport Energy Corp. | |
| 17] | | Hess Corp | | |
| 18] | Marathon Oil Corp | Marathon Oil Corp | | |
| 19] | | | Murphy Oil Corp. | |
| 20] | National Fuel Gas Co | | | |
| 21] | Newfield Exploration Co | Newfield Exploration Co | | |
| 22] | Noble Energy Inc. | Noble Energy Inc. | | |
| 23] | ONEOK Inc. | | | |
| 24] | Pioneer Natural Resources Co | Pioneer Natural Resources Co | | |
| 25] | QEP Resources Inc. | | QEP Resources Inc. | |
| 26] | Range Resources Corp | Range Resources Corp | Range Resources Corp | |
| 27] | SM Energy Co | | SM Energy Co | |
| 28] | Southwestern Energy Co | | Southwestern Energy Co | |
| 29] | | | WPX Energy Inc. | |
| 30] | Whiting Petroleum Corp | | | |
| _ | Effective I | Oate Range For Sector Index Cons | struction: | |
| | 6/19/2017 | 11/13/2017 | 11/13/2018 | |
| | - 11/12/2017 | - 11/12/2018 | - 6/17/2019 | |

Sources:

^[1] EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018, pp. 34-35.

 $^[2] EQT \ Corporation, Form \ 10-K \ for \ the \ fiscal \ year \ ended \ 31 \ December \ 2018, filed \ 14 \ February \ 2019, pp. \ 41-42.$

^[3] EQT Corporation, Form 10-K for the fiscal year ended 31 December 2019, filed 27 February 2020, pp. 40-41.

- 184. All returns used in the regression are logarithmic returns i.e., the natural logarithm of the ratio of the current day's closing price to the previous day's closing price. Logarithmic returns are commonly used in event studies and equity analysis because of various computational advantages.¹⁷⁴
- 185. EQT's stock prices, trading volume, and returns are shown in Exhibit-4. Exhibit-5 presents Market Index and Sector Index data.
- 186. I used dummy variables to control for potentially abnormal returns on the earnings announcement events that occurred during the Class Period. Using dummy variables to control for potentially atypical observations in the regression estimation periods, especially when those dates are the subject of the event study analysis, so that the estimated model parameters reflect typical stock price dynamics, is a widely used and generally accepted methodology, as noted in the academic and finance literature.¹⁷⁵
- 187. The regression results are presented in Exhibit-6.
- 188. For each date in the Class Period, I computed the explained portion of EQT's stock return by adding i) the estimated regression intercept term, ii) the day's Market Index return multiplied by the Market Index coefficient estimated by the regression, and iii) the day's Sector Index return multiplied by the Sector Index coefficient.
- 189. I then computed the residual return for each event date by subtracting the explained return from the actual return.

6. *t*-Test

190. For each earnings announcement event date, a statistical test called a *t*-test was conducted to determine whether the residual return of EQT stock was statistically significant. Statistical significance means that the return, after controlling for the overall stock market and industry sector effects, was of such magnitude that it cannot reasonably be attributed to random volatility but must have been caused by Company-specific information. A *t*-test compares the residual return on an event date to the typical residual returns

¹⁷⁴ Appendix-1 presents the mathematical formula for the logarithmic return and a discussion of the measure.

¹⁷⁵ See, e.g., "Event Studies with a Contaminated Estimation Period," by Nihat Aktas et al., *Journal of Corporate Finance*, 2007; and "Testing for Market Efficiency: A Comparison of the Cumulative Average Residual Methodology and Intervention Analysis," by David F. Larcker et al., *Journal of Financial & Quantitative Analysis*, Vol. 15, No. 2, 1980.

- exhibited over the regression estimation period. If the event date residual return is far greater (positively or negatively) than the typical residual return, the *t*-test indicates that the event residual return was unlikely to have been caused by random volatility and is therefore deemed statistically significant.¹⁷⁶
- 191. The results of the event study are presented below and summarized in Exhibit-7. Exhibit-8 presents the event study metrics for all dates during the Class Period.
- 192. As shown in Exhibit-7, five of EQT's eight earnings announcements during the Class Period elicited statistically significant stock price reactions.

C. Collective Event Study Test Results

- 193. A collective event study test has an objective screen a statistical test that determines whether the frequency of significant events is sufficient to indicate a cause-and-effect relationship between news flow and stock price movement. I conducted that statistical test to determine whether five of eight earnings announcements eliciting statistically significant stock price reactions was frequent enough to indicate market efficiency. The statistical test, known as the Fisher Exact Test, determines whether five significant stock returns out of eight earnings announcements could have been the result of random chance alone, or alternatively must have been caused by a consistent cause-and-effect relationship between the release of Company information and EQT stock price movements.
- 194. The Fisher Exact Test is a commonly used and widely accepted methodology for testing whether incidence rates are different between two groups of data.¹⁷⁷ A higher incidence

This test is called the *t*-test because it involves the computation of a *t*-statistic, which is the event day residual return divided by the standard deviation of residual returns from the control period, *i.e.*, the regression estimation data comprising all other days. If the absolute value of the *t*-statistic is greater than the critical *t*-statistic value (± 1.96 for large samples), the likelihood that the residual return could have been caused by random volatility alone is less than 5%. This is generally accepted to be so unlikely that the random volatility explanation can be rejected, and the stock return for that day is deemed statistically significant at the 95% confidence level. If the absolute value of the *t*-statistic is greater than the critical *t*-statistic value of ± 2.58 for large samples, the likelihood that the residual return could have been caused by random volatility alone is less than 1%, which is generally accepted to be so unlikely that the random volatility explanation can be rejected, and the security return for that day is deemed statistically significant at the 99% confidence level.

¹⁷⁷ See, e.g., "Reference Guide on Statistics," by David Kaye and David Freedman, Reference Manual on Scientific Evidence, 3rd Edition, 2011, p. 255.

- of statistical significance on earnings announcement event dates would indicate that EQT stock responded to information and thereby demonstrated market efficiency.
- 195. The Class Period comprised 502 trading days, of which eight days were earnings announcements. Five of the eight earnings announcement event days had statistically significant returns, which is an incidence rate of 62.5%. Of the remaining 494 trading days, deemed for purposes of this test to be lesser or non-news days, 30 were statistically significant, which is an incidence rate of 6.07%.
- 196. The Fisher Exact Test finds that this difference in significance incidence rates, 62.5% versus 6.07%, is itself, highly statistically significant. The earnings announcement days exhibited a significantly greater incidence of statistically significant returns compared to all other days.
- 197. The probability that five of eight earnings announcement days would be statistically significant if EQT stock did not respond to information (such that the stock behaves the same on news days and non-news days) is 0.00598%. With a confidence level of 99.99%, this finding rejects the null hypothesis that EQT stock behaves no differently on earnings announcement days with a greater flow of information than on all other days. The conclusion is that EQT stock reacted to information, and its market therefore demonstrated informational efficiency.

IX. MARKET EFFICIENCY SUMMARY

- 198. EQT stock traded on the NYSE with numerous market makers facilitating trading in the stock. Trading volume was well above the level warranting a strong presumption of market efficiency. The Company was widely covered by analysts and the news media. Institutional ownership of EQT stock was widespread. The Company was eligible for Form S-3 registration throughout the Class Period. Market capitalization and float were high. The stock's bid-ask spread was narrow, substantially narrower than the average bid-ask spread among all other stocks traded on U.S. exchanges. No impediments to market efficiency were present.
- 199. EQT stock also satisfied the fifth *Cammer* factor, observably reacting to information flow, thereby demonstrating market efficiency. The collective event study test proved

- that there was a cause-and-effect relationship between new, Company-specific information and movements in the price of EQT stock.
- 200. In sum, the market for EQT stock satisfied all of the *Cammer* and *Krogman* factors, which indicate market efficiency. Given these facts, I conclude that EQT stock traded in an efficient market throughout the Class Period.

X. DAMAGE METHODOLOGY FOR EACH CAUSE OF ACTION

- 201. The following sections present the damage methodologies, which are consistent with Plaintiffs' theory of liability, that can be applied commonly for all class members who have claims under the alternative causes of action.
- 202. It should be noted that I have not conducted a loss causation analysis or computed damages at this time. I will conduct the damages analysis and computations at the appropriate stage should I be asked to do so.
- 203. The full loss causation analysis that will be necessary to actually calculate damages in the current case requires the full development of the record so that I can consider and incorporate into the analysis relevant facts and documentation that may be uncovered during discovery, as well as relevant determinations and adjudications that may result as this case progresses.
- 204. A class member may have claims under multiple causes of actions resulting from the same purchase or acquisition of EQT stock. It is my understanding that in such circumstances it is a legal matter to be determined by the Court or agreement among the parties whether such an investor can recover under only one or multiple causes of action. Whatever that determination is, the computation of damages would remain a straightforward exercise in applying the formulas and computation methodologies presented below, which are common for all Class members under each cause of action.

A. Section 10(b) Common Damage Methodology

- 205. Section 10(b) addresses liability for investor losses sustained in connection with the purchase or sale of securities as a result of fraudulent misrepresentations and omissions.
- 206. The Out-Of-Pocket damage methodology discussed herein can be applied commonly to measure Section 10(b) damages for all Class members who have Section 10(b) claims.

- Out-Of-Pocket damages are measured as the difference between the amount of stock price inflation at purchase and the amount of inflation in the stock price at sale or, if held, at the end of the Class Period, taking into account formulaic prescriptions in relevant case law and statutes.¹⁷⁸
- 207. This methodology allows the calculation of individual and class-wide damages stemming from various alleged misrepresentations and omissions and therefore will accommodate alternative potential determinations of liability. Economic analyses, including valuation and empirical event study analysis, can be used to estimate the relationship between specific statements or sets of statements and the subsequent effect on prices, in the case of affirmative statements, omissions, and/or corrective disclosures. As such, class-wide damages in response to the specific misrepresentations and omissions ultimately established by the Plaintiffs can be calculated in a straightforward manner common to all Class members.
- 208. Artificial inflation is the difference between the computed but-for price and the observed market price at any point in time. To the extent that there may be specific issues complicating the quantification of artificial inflation encountered in the execution of the Out-Of-Pocket damage methodology due to potentially unique facts and circumstances of this case, the standard tools of valuation analysis can be applied as needed. Valuation tools can be applied to measure what the price of EQT stock would have been but for the alleged misrepresentations and omissions.
- 209. Valuation analysis is undertaken continuously, every day, for virtually every publicly-traded security, and these tools address the very complexities that could potentially be encountered in the course of computing inflation and damages in this case. Valuations assuming alternative scenarios are commonly conducted all the time by analysts and investors.
- 210. Among the commonly used valuation tools that are available to investors and analysts in real time, and to forensic analysts when computing damages, are, for example: valuation multiple models, such as those based on earnings, earnings before interest, tax, depreciation and amortization (EBITDA), revenue, book value, and cash flow;

¹⁷⁸ This cause of action refers to the party that is responsible.

- discounted cash flow (DCF) models; scenario analysis, and the literature regarding valuation effects of factors such as reputation and quality of accounting. In addition, forensic analysts have the added benefit of being able to use event study analysis, which quantifies the price effects that occurred when information did reach the market.
- 211. Assuming a verdict for the Plaintiffs on the allegations of fraud, Section 10(b) per share damages for each investor can be measured as follows:
 - i. First, valuation tools, which would include event study analysis such as that described herein, and potentially other empirical analyses if necessary, would be used to establish whether the disclosures, correcting the alleged misrepresentations and omissions, caused the price of EQT stock to fall. This analysis, after controlling for potentially non-fraud-related information, would establish whether the alleged misrepresentations and omissions had caused the stock price to be artificially inflated, and if corrective disclosures caused the inflation to dissipate, in turn causing investor losses. This analysis would apply on a class-wide basis.
 - ii. Second, an inflation ribbon would be constructed using generally accepted empirical analysis and valuation tools, indicating how much artificial inflation caused by the alleged misrepresentations and omissions was in the price of EQT stock on each day during the Class Period, if any. An inflation ribbon is a time series of the difference between a stock's actual price observed in the marketplace and the estimated price that the stock would have traded at each day had there been full disclosure. Construction of the inflation ribbon generally employs event study analysis, combined with widely used and generally accepted valuation tools. The inflation ribbon is often constructed by working chronologically backwards from the final corrective disclosure to the start of the Class Period, accounting for alleged fraud-related residual price declines as they occurred. Inflation prior to a corrective disclosure that dissipated inflation is greater than the inflation afterward by the amount of inflation that dissipated. The full array of generally accepted and widely used valuation tools can be applied, if necessary, to calculate the but-for stock prices under the assumption of prior full disclosure. This analysis would also apply on a class-wide basis.

- iii. Third, the measure of per share damages generally applied in Section 10(b) cases is the reduction in the inflation ribbon over an investor's holding period (the economic/inflation loss). That is, for each Class member, per share damages would be calculated as the difference between the inflation on the date the EQT shares were purchased or acquired and the inflation when those same shares were subsequently sold, or, if held, at the end of the Class Period. Inflation loss is computed identically for investors who purchased EQT shares directly in the market as well as investors who acquired EQT shares pursuant to the Acquisition, and therefore the computation of inflation loss is the same for all Class members with Section 10(b) claims.
- iv. For investors who exchanged Rice Energy shares for EQT shares in the Acquisition, the market price of the Rice Energy shares on the eve of the Acquisition (at market close on 10 November 2017), the exchange ratio, and the cash consideration terms in the Acquisition determine the effective price these investors paid for the EQT shares they acquired. The Acquisition was completed prior to the market open on 13 November 2017.¹⁷⁹ Rice Energy shareholders received 0.37 newly issued shares of EQT and \$5.30 in exchange for each share of Rice Energy.¹⁸⁰ The last market price of Rice Energy common stock was the closing price on 10 November 2017, which was \$29.32 per share. The price paid in the Acquisition by the former Rice Energy stockholders for each share of EQT common stock was therefore \$64.92 per share (equal to \$29.32 minus \$5.30 divided by 0.37).¹⁸¹
- v. With their purchase price computed, the investment loss sustained by the former Rice Energy shareholders can be computed on a per-EQT-share basis in the same manner as for any other investor in EQT shares. The damage formula for these

¹⁷⁹ "EQT Completes Acquisition of Rice Energy," *Business Wire*, Company press release, 13 November 2017, 8:35 AM.

¹⁸⁰ EQT Corporation, Form 8-K, filed 14 November 2017.

¹⁸¹ If it is determined that an alternative approach should be applied to value the Rice Energy shares exchanged in the Acquisition, the resulting valuation would be common for all Rice Energy shareholders. The damage methodology would remain common for all Class members.

- investors is the same as for investors who purchased EQT shares directly in the market.
- vi. Per share damages are also limited, however, to be no greater than the decline in share price over the investor's respective holding period, which is the investment loss actually sustained. Pursuant to the Private Securities Litigation Reform Act of 1995 (the "PSLRA") (15 U.S.C. § 78u-4(e)), for any shares sold during the 90-day period after the end of the Class Period, per share damages would be calculated as the lesser of the reduction in the dollar inflation over the investor's holding period (the economic/inflation loss), or the decline in the stock price (the investment loss), where the terminal stock price is deemed to be the average price from the final corrective disclosure date to the sale date. Also, pursuant to the PSLRA, for any shares held 90 days or more beyond the final corrective disclosure, damages would equal the lesser of the reduction in the dollar inflation over the investor's holding period (the economic/inflation loss) or the decline in the stock price (the investment loss), where the terminal stock price is deemed to be the average price over the 90 days following the final corrective disclosure.
- vii. The calculation of each Class member's damages would be a mechanical arithmetic exercise for all Class members, applying the results of the class-wide analyses described above to each Class member's trading data.
- 212. Consequently, each Class member's damages under Section 10(b) can be computed in the same way, applying this common methodology to all Class members, using readily available daily pricing information, in accordance with widely used and generally accepted methodologies and the prescriptions of the PSLRA.
- 213. I have not yet been asked to calculate damages for any of the claims alleged on behalf of the Class, and such calculations will likely depend, in part, on the completion of discovery and full development of the record in this case. However, the methodology described above is generally accepted and widely used for calculating damages under Section 10(b) for all Class members in securities class actions.

B. Section 11 Common Damage Methodology

- 214. Section 11 addresses liability for losses sustained by investors who purchased or acquired securities pursuant or traceable to a registration statement that contained untrue statements or omissions of material facts.
- 215. According to Section 11 of the Securities Act, damages to investors are computed as follows:

"[T]he difference between the amount paid for the security (not exceeding the price at which the security was offered to the public) and (1) the value thereof as of the time such suit was brought, or (2) the price at which such security shall have been disposed of in the market before suit, or (3) the price at which such security shall have been disposed of after suit but before judgment if such damages shall be less than the damages representing the difference between the amount paid for the security (not exceeding the price at which the security was offered to the public) and the value thereof as of the time such suit was brought." 15 U.S.C. § 77k(e).

- 216. As detailed in the excerpt from the statute above, Section 11 damages for any particular investor depend on several factors that can be determined in the claims process, including: (i) when the stock was purchased or acquired; (ii) the price at the time of purchase; (iii) whether the stock was sold, and if so, when it was sold and for how much; and/or (iv) if held on the date of suit, the value of the stock on that date.
- 217. For any individual Class member, that investor's recoverable loss under the statutory formula is, for each share purchased, the difference between the lesser of (A) the investor's (i) actual purchase price of the share or (ii) the price of the offering, and (B) (i) the value of the shares on the day suit was brought if the investor continued to hold the shares on the day suit was brought, or (ii) the actual sale price if the shares were sold prior to the date of suit, or (iii) the actual sale price if the shares were sold after the date of suit but before judgment, if the sale price was less than the price of the offering and greater than the value on the date of suit. As such, the statute details a common damage methodology for all Class members with Section 11 claims.

1. Price Paid and Value at Time of Suit

- 218. As presented above, the price paid in the Acquisition by the former Rice Energy stockholders for each share of EQT common stock was \$64.92 per share (equal to \$29.32 minus \$5.30 divided by 0.37).¹⁸²
- 219. On the filing date of the Section 11 claims in this lawsuit, 6 December 2019, the price of EQT common stock was \$8.78 per share.
- 220. These prices are commonly computed for all Class members with Section 11 claims.

2. Effect on Damages If Unrelated Factors Are Proven to Have Caused Losses

- 221. I understand that Defendants may seek to prove that factors unrelated to the alleged misrepresentations and omissions caused EQT's stock price to decline. That is, Defendants may seek to provide a basis for a "negative causation" argument, in accordance with Section 11 of the Securities Act.
- 222. The statute states:

"[I]f the defendant proves that any portion or all of such damages represents other than the depreciation in value of such security resulting from such part of the registration statement, with respect to which his liability is asserted, not being true or omitting to state a material fact required to be stated therein or necessary to make the statements therein not misleading, such portion of or all such damages shall not be recoverable."

15 U.S.C. § 77k(e).

223. In the absence of a showing by Defendants of negative causation, it is my opinion that the full measure of damages would be applied to all shares acquired in the Acquisition by former Rice Energy shareholders. It is my understanding that to date, Defendants have not provided any evidence or proffered any expert testimony in support of negative causation. I reserve the right to address such affirmative defenses in a rebuttal report if Defendants choose to proffer any evidence or argument in support thereof.

¹⁸² If it is determined that an alternative approach should be applied to value the Rice Energy shares exchanged in the Acquisition, the resulting valuation would be common for all Rice Energy shareholders. The damage methodology would remain common for all Class members.

C. Section 12(a)(2) Common Damage Methodology

- 224. Section 12(a)(2) addresses liability for investor losses caused by material misstatements or omissions in prospectus materials or communications provided in connection with the issuance of public securities.
- 225. Section 12(a)(2) of the Securities Act provides the methodology for calculating damages for claims thereunder on behalf of Class members who acquired shares of EQT common stock in the Acquisition. In particular, the statute provides that an investor who acquires a security in an offering pursuant to prospectus materials that contained an untrue statement or omission of material fact may sue to, among other things:

"recover the consideration paid for such security with interest thereon, less the amount of any income received thereon, upon the tender of such security, or for damages if he no longer owns the security."

15 U.S.C. § 77l(a)(2).

226. As detailed in the excerpt from the statute above, Section 12(a)(2) damages for any particular investor depend upon whether the investor continues to hold the shares acquired. Section 12(a)(2) prescribes the remedy of rescission, together with interest on the price paid for the security, running from the date of payment, except where the plaintiff no longer owns the security. If a Class member who acquired shares in the Acquisition no longer owns the shares, then damages are still "the substantial equivalent of rescission." Thus, damages under Section 12(a)(2) can be computed using the common methodology set forth in the statute.

¹⁸³ Louis Loss & Joel Seligman, Securities Regulation § 11 C.2 (3d ed. 2006) ("It seems clear in the statutory context that, when the plaintiff in Section 12 no longer owns the security, damages are to be measured so as to result in the substantial equivalent of rescission – namely, the difference between the purchase price and the plaintiff's resale price, plus interest, and less any income or return of capital (with interest) that the plaintiff received on the security."); H. R. Rep. No. 85, 73d Cong., 1st Sess., 9 (1933) (under § 12, the buyer can "sue for recovery of his purchase price, or for damages not exceeding such price").

D. Section 14(a) Common Damage Methodology

- 227. Section 14(a) establishes liability for material misstatements or omissions in a proxy statement that is an essential link in the accomplishment of the transactions and that causes investor losses.¹⁸⁴
- 228. Section 14(a) damages for both former Rice Energy shareholders and original EQT shareholders can be measured as the losses sustained when disclosures corrected the misrepresentations and omissions made related to the Acquisition. This computation, which can be commonly applied for all Class members with Section 14(a) claims is consistent with Plaintiffs' theory of liability, and with the statute, because had EQT been as it was represented to be, there would not have been corrective disclosures, correcting misrepresentations and omissions made related to the Acquisition, which caused declines in the EQT share price.
- 229. Share price declines caused by corrective disclosures can be computed using event study analysis, coupled with valuation tools if necessary. This analysis, focusing on the EQT share price behavior, is common for all Class members. Therefore, the Section 14(a) damage computation is a common analysis for all Class members with Section 14(a) claims.

E. Section 15 Common Damages Methodology

- 230. Section 15 addresses liability for losses sustained by investors who purchased or acquired securities pursuant or traceable to a registration statement that contained untrue statements or omissions of material facts. This cause of action is brought against Officer Defendants who were control persons of EQT, via their direct and indirect business and personal relationships with other control persons and major shareholders of EQT.
- 231. I understand that the damages methodology used to measure Section 11 damages, discussed in § Error! Reference source not found. above, is the appropriate prescription

¹⁸⁴ "No solicitation subject to this regulation shall be made by means of any proxy statement, form of proxy, notice of meeting or other communication, written or oral, containing any statement which, at the time and in the light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements therein not false or misleading or necessary to correct any statement in any earlier communication with respect to the solicitation of a proxy for the same meeting or subject matter which has become false or misleading." *See* 17 C.F.R. § 240.14a-9.

to measure damages under Section 15 of the Securities Act. As such, damages for all Class Members with claims under Section 15 can be computed using a common methodology that is consistent with Plaintiffs' theory of liability, as described above for Section 11 damages.

F. Section 20(a) Common Damages Methodology

- 232. Section 20(a) addresses liability for investor losses sustained in connection with the purchase or sale of securities as a result of fraudulent misrepresentations and omissions. This cause of action is brought against Officer Defendants who acted as controlling persons of EQT, via their ability to control the action of EQT and its employees.
- 233. I understand that the Out-Of-Pocket damage methodology used to measure Section 10(b) damages, discussed in § X.A above, is the appropriate prescription to measure damages under Section 20(a) of the Exchange Act. As such, damages for all Class Members with claims under Section 20(a) can be computed using a common methodology that is consistent with Plaintiffs' theory of liability, as described above for Section 10(b) damages.

G. Section 20A Common Damage Methodology

- 234. Section 20A addresses liability for losses sustained by investors who purchased or acquired securities contemporaneously with investors who sold or disposed of those securities while in possession of material, non-public information. I understand that different courts have defined "contemporaneous" trading differently, but the Section 20A damage computation methodology described here is common to all Class members regardless of the definition used.
- 235. The formula for calculating damages under Section 20A of the Exchange Act is spelled out in the statute:

"Any person who violates any provision of this title [15 USCS §§ 78a et seq.] or the rules or regulations thereunder by purchasing or selling a security while in possession of material, nonpublic information shall be liable in an action in any court of competent jurisdiction to any person who, contemporaneously with the purchase or sale of securities that is the subject of such violation, has purchased (where such violation is based on a sale of

securities) or sold (where such violation is based on a purchase of securities) securities of the same class."

15 U.S.C. § 78t-1(a).

"The total amount of damages imposed under subsection (a) shall not exceed the profit gained or loss avoided in the transaction or transactions that are the subject of the violation."

15 U.S.C. § 78t-1(b)(1).

- 236. Therefore, to compute Section 20A damages, one would identify when Defendant David Porges sold shares during the Class Period at an inflated price and measure his loss avoided, equal to the decline in the share price between the date of his sale and the later date when inflation was fully dissipated by corrective disclosure. The decline in price over this period is the per share loss avoided. For a group of shares sold simultaneously, the loss avoided would be the number of shares sold multiplied by the per share loss avoided. Total loss avoided is the sum of the losses avoided on all such sold shares.
- 237. Consistent with the statutory terms presented above, compensable damages to persons who contemporaneously bought or sold EQT stock would be the losses sustained or profits deprived, computed in similar fashion as Mr. Porges' profits gained and losses avoided.
 - A sustained loss would be the decline in the value of the EQT stock position between the time of purchase and the later sale date, or the date of full corrective disclosure that dissipated the artificial inflation in the security's price, whichever occurred first.
 - ii. A deprived profit would occur if an investor closed a short position (comprising any combination of short stock, purchased put options, and/or written call options) contemporaneously with Mr. Porges selling shares or opening a short position. The investor's deprived profit would be the increase in the value of the short position from the time the investor closed the short position until the time the full corrective disclosure dissipated the artificial inflation in the stock price, assuming the position had been held open.

- 238. Should it be that the aggregate sum of Mr. Porges' losses avoided and profits gained is less than the aggregate sum of Section 20A Class members' losses sustained and deprived profits, the aggregate sum of Mr. Porges' losses avoided and profits gained can be allocated to Section 20A Class members on a *pro rata* basis.
- 239. The profits gained by Mr. Porges and losses avoided by Mr. Porges do not depend on any individual investor's circumstances. Similarly, the losses sustained by any investor and/or the profits deprived any investor depend only on the investor's position in EQT stock and the stock price. Consequently, Section 20A damages for all investors can be computed using a common damage formula.

XI. LIMITING FACTORS AND OTHER ASSUMPTIONS

240. This report is furnished solely for the purpose of court proceedings in the abovereferenced matter and may not be used or referred to for any other purpose. The analysis
and opinions contained in this report are based on information available as of the date of
the report. I reserve the right to amend, refine, or supplement this report in the event that I
become aware of additional information, evidence, arguments, or analyses which bear on
my work on this matter.

Steven P Feinstein Ph D CFA

XII. APPENDIX-1: LOGARITHMIC RETURNS

A-1. Logarithmic returns, rather than percent change returns, are commonly used in stock return regressions and event study analysis and were used in the regression modeling here. The formula for a logarithmic return is:

$$R_{t} = \ln \left(\frac{P_{t} + d_{t}}{P_{t-1}} \right)$$

where:

 R_t is the logarithmic return on day t; P_t is the stock price at the end of day t; P_{t-1} is the stock price from the previous day, day t-1; d_t is the dividend on day t, if any.

A-2. The formula for converting a logarithmic return into a dollar return is:

$$DR_t = P_{t-1} \cdot (e^{R_t} - 1)$$

where:

 DR_t is the dollar return on day t; P_{t-1} is the stock price from the previous day, day t-1; e is natural e (approximately 2.7); R_t is the logarithmic return on day t.

- A-3. If a stock falls from \$20 to \$18, the percent change in price is -10%, equal to the \$2 decline divided by the original \$20 price. The logarithmic return, however, is -10.54%, equal to ln(\$18/\$20).
- A-4. The logarithmic return relates a price change to an average of the original, final, and intervening prices over the course of a price decline. As such, for large price declines, it is possible for a logarithmic price decline to exceed 100%, since the price decline may be greater than the average of the beginning and ending prices.
- A-5. An attractive feature of a logarithmic return is that it can be decomposed into contributing factors linearly. That is, the portion of a logarithmic return caused by company-specific information is isolated by subtracting from the total logarithmic return the portion of the total return caused by market and sector factors.

Documents and Other Information Considered

CASE DOCUMENTS

- Complaint For Violations Of The Federal Securities Laws, filed 25 June 2019.
- First Amended Complaint For Violations Of The Federal Securities Laws, Filed 6 December 2019.
- Motion to Dismiss Opinion, filed 2 December 2020.

NEWS ARTICLES/PRESS RELEASES

• Factiva news articles from 21 June 2016 to 17 June 2020, downloaded using the following search parameters: All Sources; All Authors; Company: "EQT Corp"; All Subjects; All Industries; All Regions.

ANALYST REPORTS

- RBC Capital, 3 January 2017.
- BMO Capital, 11 January 2017.
- JPMorgan, 25 January 2017.
- Sadif, 27 January 2017.
- RBC Capital, 31 January 2017.
- BMO Capital, 2 February 2017.
- Cowen and Company, 2 February 2017.
- Deutsche Bank, 2 February 2017.
- Evercore, 2 February 2017.
- Jefferies, 2 February 2017.
- Jefferies, 2 February 2017.
- JPMorgan, 2 February 2017.
- Ladenburg Thalmann, 2 February 2017.
- Morgan Stanley, 2 February 2017.
- Morgan Stanley, 2 February 2017.
- RBC Capital, 2 February 2017.
- SunTrust Robinson, 2 February 2017.
- SunTrust Robinson, 2 February 2017.
- Wells Fargo, 2 February 2017.
- Wolfe Research, 2 February 2017.
- Credit Suisse, 3 February 2017.

- KLR Group, 3 February 2017.
- Ladenburg Thalmann, 3 February 2017.
- RBC Capital, 7 February 2017.
- SunTrust Robinson, 8 February 2017.
- Evercore, 9 February 2017.
- Ladenburg Thalmann, 9 February 2017.
- RBC Capital, 9 February 2017.
- RBC Capital, 9 February 2017.
- Scotia Howard Weil, 9 February 2017.
- Wells Fargo, 9 February 2017.
- Wells Fargo, 13 February 2017.
- Barclays, Rice Energy Inc., 22 February 2017.
- JPMorgan, Rice Energy Inc., 22 February 2017.
- Wolfe Research, Rice Energy Inc., 22 February 2017.
- Stephens, Rice Energy Inc., 23 February 2017.
- Williams Capital, Rice Energy Inc., 23 February 2017.
- Barclays, Rice Energy Inc., 24 February 2017.
- MUFG Securities, Rice Energy Inc., 24 February 2017.
- National Securities, Rice Energy Inc., 24 February 2017.
- RBC Capital, Rice Energy Inc., 24 February 2017.
- JPMorgan, 1 March 2017.
- KLR Group, Rice Energy Inc., 6 March 2017.
- Stephens, Rice Energy Inc., 6 March 2017.
- SunTrust Robinson, Rice Energy Inc., 6 March 2017.
- Wells Fargo, Rice Energy Inc., 7 March 2017.
- JPMorgan, Rice Energy Inc., 13 March 2017.
- RBC Capital, 27 March 2017.
- RBC Capital, 27 March 2017.
- SunTrust Robinson, 27 March 2017.
- Wells Fargo, 27 March 2017.
- JPMorgan, Rice Energy Inc., 19 April 2017.
- JPMorgan, 25 April 2017.
- RBC Capital, 25 April 2017.
- BMO Capital, 27 April 2017.
- Cowen and Company, 27 April 2017.
- Deutsche Bank, 27 April 2017.
- Evercore, 27 April 2017.

- Jefferies, 27 April 2017.
- JPMorgan, 27 April 2017.
- KLR Group, 27 April 2017.
- Ladenburg Thalmann, 27 April 2017.
- Morgan Stanley, 27 April 2017.
- Morgan Stanley, 27 April 2017.
- RBC Capital, 27 April 2017.
- Scotia Howard Weil, 27 April 2017.
- SunTrust Robinson, 27 April 2017.
- SunTrust Robinson, 27 April 2017.
- Wells Fargo, 27 April 2017.
- Credit Suisse, 28 April 2017.
- Ladenburg Thalmann, 28 April 2017.
- Sadif, 28 April 2017.
- Scotia Howard Weil, 28 April 2017.
- RBC Capital, Rice Energy Inc., 2 May 2017.
- BMO Capital, Rice Energy Inc., 3 May 2017.
- Cowen and Company, Rice Energy Inc., 3 May 2017.
- Deutsche Bank, Rice Energy Inc., 3 May 2017.
- Jefferies, Rice Energy Inc., 3 May 2017.
- JPMorgan, Rice Energy Inc., 3 May 2017.
- RBC Capital, Rice Energy Inc., 3 May 2017.
- Scotia Howard Weil, Rice Energy Inc., 3 May 2017.
- Stephens, Rice Energy Inc., 3 May 2017.
- SunTrust Robinson, Rice Energy Inc., 3 May 2017.
- Wells Fargo, Rice Energy Inc., 3 May 2017.
- Scotia Howard Weil, Rice Energy Inc., 4 May 2017.
- SunTrust Robinson, Rice Energy Inc., 4 May 2017.
- Williams Capital, Rice Energy Inc., 4 May 2017.
- Credit Suisse, 5 May 2017.
- RBC Capital, Rice Energy Inc., 5 May 2017.
- National Securities, Rice Energy Inc., 8 May 2017.
- MUFG Securities, Rice Energy Inc., 9 May 2017.
- Stephens, Rice Energy Inc., 9 May 2017.
- KLR Group, Rice Energy Inc., 10 May 2017.
- Wells Fargo, 11 May 2017.
- Evercore, 14 May 2017.

- Wells Fargo, Rice Energy Inc., 23 May 2017.
- JPMorgan, Rice Energy Inc., 31 May 2017.
- JPMorgan, 31 May 2017.
- RBC Capital, 6 June 2017.
- Wolfe Research, Rice Energy Inc., 14 June 2017.
- Wolfe Research, 14 June 2017.
- Barclays, Rice Energy Inc., 19 June 2017.
- Barclays, 19 June 2017.
- Cowen and Company, 19 June 2017.
- Deutsche Bank, 19 June 2017.
- Evercore, 19 June 2017.
- Gordon Haskett, 19 June 2017.*
- Jefferies, 19 June 2017.
- JPMorgan, 19 June 2017.
- Ladenburg Thalmann, 19 June 2017.
- Morgan Stanley, 19 June 2017.
- RBC Capital, Rice Energy Inc., 19 June 2017.
- RBC Capital, 19 June 2017.
- Scotia Howard Weil, 19 June 2017.*
- SunTrust Robinson, 19 June 2017.
- Wells Fargo, 19 June 2017.
- Williams Capital, Rice Energy Inc., 19 June 2017.
- BMO Capital, 20 June 2017.
- Evercore, 20 June 2017.
- Ladenburg Thalmann, 20 June 2017.
- Ladenburg Thalmann, 20 June 2017.
- MUFG Securities, Rice Energy Inc., 20 June 2017.
- National Securities, Rice Energy Inc., 20 June 2017.
- RBC Capital, Rice Energy Inc., 20 June 2017.
- Scotia Howard Weil, 20 June 2017.*
- Scotia Howard Weil, 20 June 2017.
- RBC Capital, 23 June 2017.
- KLR Group, 26 June 2017.
- Scotia Howard Weil, Rice Energy Inc., 26 June 2017.*
- Scotia Howard Weil, Rice Energy Inc., 26 June 2017.
- KLR Group, Rice Energy Inc., 27 June 2017.
- Wolfe Research, Rice Energy Inc., 28 June 2017.

- Wolfe Research, 28 June 2017.*
- Wells Fargo, 29 June 2017.
- RBC Capital, 3 July 2017.
- Williams Capital, Rice Energy Inc., 3 July 2017.
- Gordon Haskett, 5 July 2017.*
- RBC Capital, 5 July 2017.
- RBC Capital, 5 July 2017.
- Evercore, 6 July 2017.
- Jefferies, 12 July 2017.*
- Deutsche Bank, 13 July 2017.
- Scotia Howard Weil, 14 July 2017.*
- Scotia Howard Weil, 14 July 2017.
- JPMorgan, 20 July 2017.
- RBC Capital, 21 July 2017.
- Evercore, 26 July 2017.
- SunTrust Robinson, 26 July 2017.
- BMO Capital, 27 July 2017.
- Cowen and Company, 27 July 2017.
- Deutsche Bank, 27 July 2017.
- Evercore, 27 July 2017.
- Jefferies, 27 July 2017.
- JPMorgan, 27 July 2017.
- KLR Group, 27 July 2017.
- Ladenburg Thalmann, 27 July 2017.
- Morgan Stanley, 27 July 2017.
- RBC Capital, 27 July 2017.
- RBC Capital, 27 July 2017.
- Scotia Howard Weil, 27 July 2017.
- SunTrust Robinson, 27 July 2017.
- SunTrust Robinson, 27 July 2017.
- Wells Fargo, 27 July 2017.
- Gordon Haskett, 28 July 2017.*
- JPMorgan, 28 July 2017.
- Ladenburg Thalmann, 28 July 2017.
- RBC Capital, 28 July 2017.
- Scotia Howard Weil, 28 July 2017.*
- RBC Capital, 31 July 2017.

- Cowen and Company, Rice Energy Inc., 2 August 2017.
- Scotia Howard Weil, Rice Energy Inc., 2 August 2017.
- Wells Fargo, Rice Energy Inc., 2 August 2017.
- Stephens, Rice Energy Inc., 3 August 2017.
- SunTrust Robinson, Rice Energy Inc., 3 August 2017.
- MUFG Securities, Rice Energy Inc., 4 August 2017.
- National Securities, Rice Energy Inc., 7 August 2017.
- Evercore, 8 August 2017.
- Gordon Haskett, 9 August 2017.*
- RBC Capital, 14 August 2017.
- Morgan Stanley, 16 August 2017.
- Wells Fargo, Rice Energy Inc., 21 August 2017.
- Wells Fargo, 21 August 2017.
- Evercore, 8 September 2017.
- Gordon Haskett, 14 September 2017.*
- Ladenburg Thalmann, 14 September 2017.
- Ladenburg Thalmann, 14 September 2017.
- RBC Capital, 14 September 2017.
- Scotia Howard Weil, 14 September 2017.
- Wells Fargo, 14 September 2017.
- BMO Capital, 18 September 2017.
- Gordon Haskett, 21 September 2017.*
- JPMorgan, 2 October 2017.
- Cowen and Company, 10 October 2017.*
- Cowen and Company, 10 October 2017.*
- JPMorgan, 12 October 2017.
- Scotia Howard Weil, 13 October 2017.*
- RBC Capital, 16 October 2017.
- Sadif, Rice Energy Inc., 16 October 2017.
- RBC Capital, 17 October 2017.
- Cowen and Company, 18 October 2017.
- Cowen and Company, 23 October 2017.
- Evercore, 23 October 2017.
- RBC Capital, 23 October 2017.
- RBC Capital, 23 October 2017.
- RBC Capital, 23 October 2017.
- Cowen and Company, 24 October 2017.

- Morgan Stanley, 24 October 2017.
- BMO Capital, 26 October 2017.
- Cowen and Company, 26 October 2017.
- Deutsche Bank, 26 October 2017.
- Evercore, 26 October 2017.
- Jefferies, 26 October 2017.
- Jefferies, 26 October 2017.
- JPMorgan, 26 October 2017.
- KLR Group, 26 October 2017.
- Ladenburg Thalmann, 26 October 2017.
- Morgan Stanley, 26 October 2017.
- Morgan Stanley, 26 October 2017.
- RBC Capital, 26 October 2017.
- RBC Capital, 26 October 2017.
- Scotia Howard Weil, 26 October 2017.*
- SunTrust Robinson, 26 October 2017.
- Wells Fargo, 26 October 2017.
- Ladenburg Thalmann, 27 October 2017.
- Ladenburg Thalmann, 27 October 2017.
- RBC Capital, 27 October 2017.
- RBC Capital, 27 October 2017.
- SunTrust Robinson, 27 October 2017.
- Glass Lewis, 29 October 2017.
- Cowen and Company, 30 October 2017.
- Scotia Howard Weil, 30 October 2017.*
- JPMorgan, 31 October 2017.
- Scotia Howard Weil, Rice Energy Inc., 2 November 2017.
- Wells Fargo, Rice Energy Inc., 2 November 2017.
- Wells Fargo, 3 November 2017.
- ISS, 6 November 2017.
- Wolfe Research, Rice Energy Inc., 8 November 2017.*
- RBC Capital, 9 November 2017.
- Barclays, Rice Energy Inc., 13 November 2017.
- Evercore, 13 November 2017.
- RBC Capital, Rice Energy Inc., 13 November 2017.
- RBC Capital, 13 November 2017.
- Stephens, Rice Energy Inc., 13 November 2017.

- Cowen and Company, Rice Energy Inc., 14 November 2017.
- KLR Group, Rice Energy Inc., 14 November 2017.
- Ladenburg Thalmann, 15 November 2017.
- Wells Fargo, Rice Energy Inc., 15 November 2017.
- Jefferies, Rice Energy Inc., 17 November 2017.
- SunTrust Robinson, Rice Energy Inc., 17 November 2017.
- Evercore, 18 November 2017.
- SunTrust Robinson, 8 December 2017.
- Scotia Howard Weil, 11 December 2017.
- Credit Suisse, 13 December 2017.
- Credit Suisse, 13 December 2017.
- Evercore, 13 December 2017.
- JPMorgan, 13 December 2017.
- Ladenburg Thalmann, 13 December 2017.
- Ladenburg Thalmann, 13 December 2017.
- RBC Capital, 13 December 2017.
- Scotia Howard Weil, 13 December 2017.*
- SunTrust Robinson, 13 December 2017.
- Wells Fargo, 13 December 2017.
- KLR Group, 14 December 2017.
- RBC Capital, 14 December 2017.
- Wells Fargo, 14 December 2017.
- Wright Reports, 14 December 2017.
- Validea, 15 December 2017.
- Evercore, 18 December 2017.*
- JPMorgan, 22 December 2017.
- BMO Capital, 26 December 2017.
- JPMorgan, 25 January 2018.
- JPMorgan, 26 January 2018.
- Wright Reports, 30 January 2018.
- Scotia Howard Weil, 9 February 2018.*
- SunTrust Robinson, 11 February 2018.*
- RBC Capital, 12 February 2018.*
- RBC Capital, 12 February 2018.
- RBC Capital, 12 February 2018.
- BMO Capital, 15 February 2018.
- Cowen and Company, 15 February 2018.

- Credit Suisse, 15 February 2018.
- Deutsche Bank, 15 February 2018.
- Evercore, 15 February 2018.
- Jefferies, 15 February 2018.
- JPMorgan, 15 February 2018.
- Ladenburg Thalmann, 15 February 2018.
- RBC Capital, 15 February 2018.
- RBC Capital, 15 February 2018.
- RBC Capital, 15 February 2018.
- Scotia Howard Weil, 15 February 2018.*
- SunTrust Robinson, 15 February 2018.
- SunTrust Robinson, 15 February 2018.
- Wells Fargo, 15 February 2018.
- Ladenburg Thalmann, 16 February 2018.
- Ladenburg Thalmann, 16 February 2018.
- Morgan Stanley, 16 February 2018.
- RBC Capital, 16 February 2018.*
- RBC Capital, 16 February 2018.
- Scotia Howard Weil, 16 February 2018.*
- Evercore, 19 February 2018.*
- KLR Group, 20 February 2018.
- Cowen and Company, 21 February 2018.
- Credit Suisse, 21 February 2018.
- Evercore, 21 February 2018.
- Evercore, 21 February 2018.
- JPMorgan, 21 February 2018.
- Morgan Stanley, 21 February 2018.
- Morgan Stanley, 21 February 2018.
- RBC Capital, 21 February 2018.
- Scotia Howard Weil, 21 February 2018.*
- SunTrust Robinson, 21 February 2018.
- SunTrust Robinson, 21 February 2018.
- Wells Fargo, 21 February 2018.
- Ladenburg Thalmann, 22 February 2018.
- Ladenburg Thalmann, 22 February 2018.
- Wright Reports, 2 March 2018.
- Scotia Howard Weil, 5 March 2018.

- Evercore, 8 March 2018.
- Wells Fargo, 12 March 2018.
- Cowen and Company, 15 March 2018.
- Credit Suisse, 15 March 2018.
- RBC Capital, 15 March 2018.
- SunTrust Robinson, 15 March 2018.
- Wells Fargo, 16 March 2018.
- Jefferies, 19 March 2018.*
- Validea, 23 March 2018.
- Wright Reports, 20 April 2018.
- JPMorgan, 24 April 2018.
- RBC Capital, 24 April 2018.
- BMO Capital, 26 April 2018.
- Cowen and Company, 26 April 2018.
- Credit Suisse, 26 April 2018.
- Deutsche Bank, 26 April 2018.
- Evercore, 26 April 2018.
- Jefferies, 26 April 2018.
- JPMorgan, 26 April 2018.
- Ladenburg Thalmann, 26 April 2018.
- Morgan Stanley, 26 April 2018.
- Morgan Stanley, 26 April 2018.
- RBC Capital, 26 April 2018.
- RBC Capital, 26 April 2018.
- Scotia Howard Weil, 26 April 2018.*
- Scotia Howard Weil, 26 April 2018.*
- SunTrust Robinson, 26 April 2018.
- SunTrust Robinson, 26 April 2018.
- Wells Fargo, 26 April 2018.
- KLR Group, 27 April 2018.
- Ladenburg Thalmann, 27 April 2018.
- Scotia Howard Weil, 27 April 2018.*
- Cowen and Company, 7 May 2018.*
- Cowen and Company, 7 May 2018.
- Credit Suisse, 7 May 2018.
- Wells Fargo, 21 May 2018.
- RBC Capital, 31 May 2018.

- Wright Reports, 10 June 2018.
- JPMorgan, 13 June 2018.
- Cowen and Company, 22 June 2018.
- Scotia Howard Weil, 25 June 2018.*
- JPMorgan, 28 June 2018.
- Scotia Howard Weil, 29 June 2018.
- SunTrust Robinson, 29 June 2018.
- Validea, 29 June 2018.
- Ladenburg Thalmann, 2 July 2018.
- Scotia Howard Weil, 2 July 2018.*
- TD Securities, 5 July 2018.
- Cowen and Company, 13 July 2018.
- JPMorgan, 19 July 2018.
- RBC Capital, 19 July 2018.
- BMO Capital, 26 July 2018.
- Cowen and Company, 26 July 2018.
- Credit Suisse, 26 July 2018.
- JPMorgan, 26 July 2018.
- Ladenburg Thalmann, 26 July 2018.
- Morgan Stanley, 26 July 2018.
- RBC Capital, 26 July 2018.
- RBC Capital, 26 July 2018.
- Scotia Howard Weil, 26 July 2018.*
- SunTrust Robinson, 26 July 2018.
- SunTrust Robinson, 26 July 2018.
- TD Securities, 26 July 2018.
- Wells Fargo, 26 July 2018.
- Ladenburg Thalmann, 27 July 2018.
- TD Securities, 27 July 2018.
- Cowen and Company, 30 July 2018.
- JPMorgan, 30 July 2018.
- Wells Fargo, 31 July 2018.
- Cowen and Company, 2 August 2018.
- Scotia Howard Weil, 3 August 2018.*
- Cowen and Company, 6 August 2018.
- Evercore, 6 August 2018.
- Morgan Stanley, 6 August 2018.

- Scotia Howard Weil, 6 August 2018.*
- Cowen and Company, 9 August 2018.
- RBC Capital, 9 August 2018.
- Scotia Howard Weil, 9 August 2018.*
- RBC Capital, 16 August 2018.
- Ladenburg Thalmann, 17 August 2018.
- Scotia Howard Weil, 17 August 2018.*
- Zacks Equity, 29 August 2018.
- Scotia Howard Weil, 30 August 2018.*
- Zacks Equity, 1 October 2018.
- SunTrust Robinson, 2 October 2018.
- JPMorgan, 22 October 2018.
- Wells Fargo, 23 October 2018.
- RBC Capital, 24 October 2018.
- BMO Capital, 25 October 2018.
- Credit Suisse, 25 October 2018.
- Jefferies, 25 October 2018.
- JPMorgan, 25 October 2018.
- Ladenburg Thalmann, 25 October 2018.
- Morgan Stanley, 25 October 2018.
- RBC Capital, 25 October 2018.
- Scotia Howard Weil, 25 October 2018.*
- Scotia Howard Weil, 25 October 2018.*
- SunTrust Robinson, 25 October 2018.
- SunTrust Robinson, 25 October 2018.
- TD Securities, 25 October 2018.
- BMO Capital, 26 October 2018.
- Jefferies, 26 October 2018.
- Ladenburg Thalmann, 26 October 2018.
- RBC Capital, 26 October 2018.
- RBC Capital, 29 October 2018.
- Zacks Equity, 30 October 2018.
- RBC Capital, 31 October 2018.
- JPMorgan, 5 November 2018.
- Zacks Equity, 7 November 2018.
- Scotia Howard Weil, 13 November 2018.*
- Ladenburg Thalmann, 14 November 2018.

- Morgan Stanley, 14 November 2018.
- Morgan Stanley, 14 November 2018.
- TD Securities, 15 November 2018.
- Morgan Stanley, 16 November 2018.
- RBC Capital, 23 November 2018.
- Zacks Equity, 5 December 2018.
- Morgan Stanley, 10 December 2018.
- RBC Capital, 10 December 2018.
- RBC Capital, 11 December 2018.
- Scotia Howard Weil, 11 December 2018.*
- Scotia Howard Weil, 11 December 2018.
- RBC Capital, 20 December 2018.*
- RBC Capital, 28 December 2018.*
- RBC Capital, 7 January 2019.
- RBC Capital, 7 January 2019.
- Zacks Equity, 7 January 2019.
- Scotia Howard Weil, 8 January 2019.*
- Scotia Howard Weil, 8 January 2019.
- Scotia Howard Weil, 15 January 2019.*
- BMO Capital, 22 January 2019.
- Credit Suisse, 22 January 2019.
- Evercore, 22 January 2019.
- JPMorgan, 22 January 2019.
- RBC Capital, 22 January 2019.
- RBC Capital, 22 January 2019.
- Scotia Howard Weil, 22 January 2019.*
- Scotia Howard Weil, 22 January 2019.
- SunTrust Robinson, 22 January 2019.
- Wells Fargo, 22 January 2019.
- Ladenburg Thalmann, 23 January 2019.
- MKM Partners, 23 January 2019.
- Morgan Stanley, 23 January 2019.
- TD Securities, 23 January 2019.
- Jefferies, 24 January 2019.
- RBC Capital, 4 February 2019.
- JPMorgan, 5 February 2019.
- RBC Capital, 5 February 2019.

- TD Securities, 5 February 2019.
- Zacks Equity, 7 February 2019.
- Credit Suisse, 14 February 2019.
- Evercore, 14 February 2019.
- Jefferies, 14 February 2019.
- JPMorgan, 14 February 2019.
- Morgan Stanley, 14 February 2019.
- Scotia Howard Weil, 14 February 2019.
- SunTrust Robinson, 14 February 2019.
- SunTrust Robinson, 14 February 2019.
- Wells Fargo, 14 February 2019.
- Wolfe Research, 14 February 2019.
- Jefferies, 15 February 2019.
- Ladenburg Thalmann, 15 February 2019.
- MKM Partners, 19 February 2019.
- TD Securities, 19 February 2019.
- Wolfe Research, 20 February 2019.*
- RBC Capital, 27 February 2019.
- RBC Capital, 5 March 2019.
- Wolfe Research, 6 March 2019.*
- Morgan Stanley, 7 March 2019.
- RBC Capital, 7 March 2019.
- Scotia Howard Weil, 8 March 2019.
- Wells Fargo, 12 March 2019.
- Zacks Equity, 12 March 2019.
- Wolfe Research, 20 March 2019.*
- Ladenburg Thalmann, 25 March 2019.
- RBC Capital, 25 March 2019.
- SunTrust Robinson, 25 March 2019.
- Wolfe Research, 27 March 2019.*
- Wolfe Research, 3 April 2019.*
- JPMorgan, 10 April 2019.
- Zacks Equity, 11 April 2019.
- BMO Capital, 25 April 2019.
- Cowen and Company, 25 April 2019.
- Credit Suisse, 25 April 2019.
- Evercore, 25 April 2019.

- Jefferies, 25 April 2019.
- JPMorgan, 25 April 2019.
- JPMorgan, 25 April 2019.
- RBC Capital, 25 April 2019.
- Scotia Howard Weil, 25 April 2019.
- Scotia Howard Weil, 25 April 2019.
- SunTrust Robinson, 25 April 2019.
- SunTrust Robinson, 25 April 2019.
- Wells Fargo, 25 April 2019.
- Wolfe Research, 25 April 2019.
- Jefferies, 26 April 2019.
- Ladenburg Thalmann, 26 April 2019.
- MKM Partners, 26 April 2019.
- RBC Capital, 26 April 2019.
- TD Securities, 29 April 2019.
- Wolfe Research, 1 May 2019.*
- Wells Fargo, 6 May 2019.
- Credit Suisse, 9 May 2019.
- Wells Fargo, 9 May 2019.
- Zacks Equity, 10 May 2019.
- Smart Insider, 31 May 2019.
- Macquarie, 3 June 2019.
- Wolfe Research, 6 June 2019.
- Zacks Equity, 14 June 2019.
- Cowen and Company, 17 June 2019.
- Credit Suisse, 17 June 2019.
- Evercore, 17 June 2019.
- Macquarie, 17 June 2019.
- Macquarie, 17 June 2019.
- RBC Capital, 17 June 2019.
- Scotia Howard Weil, 17 June 2019.*
- SunTrust Robinson, 17 June 2019.
- Wells Fargo, 17 June 2019.
- Ladenburg Thalmann, 18 June 2019.
- RBC Capital, 18 June 2019.
- Scotia Howard Weil, 18 June 2019.
- ISS, 28 June 2019.

- RBC Capital, 28 June 2019.
- Scotia Howard Weil, 28 June 2019.
- SunTrust Robinson, 28 June 2019.
- Macquarie, 1 July 2019.
- Morgan Stanley, 1 July 2019.
- RBC Capital, 1 July 2019.
- Scotia Howard Weil, 1 July 2019.
- Wolfe Research, 2 July 2019.*
- Sadif, 4 July 2019.
- Credit Suisse, 9 July 2019.
- Wolfe Research, 9 July 2019.
- Cowen and Company, 10 July 2019.
- Glass Lewis, 10 July 2019.
- Macquarie, 10 July 2019.
- Morgan Stanley, 10 July 2019.
- RBC Capital, 10 July 2019.
- Sadif, 10 July 2019.
- Scotia Howard Weil, 10 July 2019.*
- SunTrust Robinson, 10 July 2019.
- TD Securities, 10 July 2019.
- Wells Fargo, 10 July 2019.
- Zacks Equity, 12 July 2019.
- JPMorgan, 16 July 2019.
- MKM Partners, 16 July 2019.*
- Morgan Stanley, 23 July 2019.
- BMO Capital, 25 July 2019.
- Cowen and Company, 25 July 2019.
- Credit Suisse, 25 July 2019.
- Credit Suisse, 25 July 2019.
- Credit Suisse, 25 July 2019.
- Evercore, 25 July 2019.
- Jefferies, 25 July 2019.
- JPMorgan, 25 July 2019.
- JPMorgan, 25 July 2019.
- JPMorgan, 25 July 2019.
- Macquarie, 25 July 2019.
- Macquarie, 25 July 2019.

Documents and Other Information Considered

- MKM Partners, 25 July 2019.
- Morgan Stanley, 25 July 2019.
- RBC Capital, 25 July 2019.
- Sadif, 25 July 2019.
- Scotia Howard Weil, 25 July 2019.
- SunTrust Robinson, 25 July 2019.
- SunTrust Robinson, 25 July 2019.
- TD Securities, 25 July 2019.
- Wells Fargo, 25 July 2019.
- Wolfe Research, 25 July 2019.
- Wolfe Research, 25 July 2019.
- Jefferies, 26 July 2019.
- Ladenburg Thalmann, 26 July 2019.
- TD Securities, 26 July 2019.
- RBC Capital, 28 July 2019.
- Zacks Equity, 12 August 2019.

Note: "*" denotes industry report.

SEC FILINGS

- EQT Corporation, Form 10-Q/A for the quarterly period ended 31 March 2016, filed 9 May 2016.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 June 2016, filed 28 July 2016.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 September 2016, filed 27 October 2016.
- EQT Midstream Partners, LP, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017.
- EQT Corporation, Form 10-K for the fiscal year ended 31 December 2016, filed 9 February 2017.
- EQT Corporation, Form 10-Q for the quarterly period ended 31 March 2017, filed 27 April 2017.
- EQT Corporation, Form SC 13D/A, filed 5 July 2017.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 June 2017, filed 27 July 2017.
- Rice Energy Inc, Form 425, filed 27 July 2017.

- EQT Corporation, Form 8-K, filed 27 July 2017.
- EQT Corporation, Form S-4, filed 27 July 2017.
- Rice Energy Inc, Form 425, filed 28 July 2017.
- EQT Corporation, Form SC 13D/A, filed 31 July 2017.
- Rice Energy Inc, Form 425, filed 3 August 2017.
- EQT Corporation, Form 8-K, filed 3 August 2017.
- EQT Corporation, Form SC 13D/A, filed 14 August 2017.
- EQT Corporation, Form UPLOAD, filed 25 August 2017.
- EQT Corporation, Form CORRESP, filed 8 September 2017.
- EQT Corporation, Form S-4A, filed 8 September 2017.
- EQT Corporation, Form PREC14A, filed 11 September 2017.
- Rice Energy Inc, Form 425, filed 14 September 2017.
- EQT Corporation, Form UPLOAD, filed 19 September 2017.
- EQT Corporation, Form SC 13D/A, filed 20 September 2017.
- EQT Corporation, Form DFAN14A, filed 21 September 2017.
- EQT Corporation, Form PRRN14A, filed 26 September 2017.
- EQT Corporation, Form 424B5, filed 27 September 2017.
- Rice Energy Inc, Form 425, filed 27 September 2017.
- EOT Corporation, Form 8-K, filed 27 September 2017.
- EQT Corporation, Form FWP, filed 27 September 2017.
- Rice Energy Inc, Form 425, filed 28 September 2017.
- EQT Corporation, Form CORRESP, filed 28 September 2017.
- EQT Corporation, Form 424B5, filed 29 September 2017.
- EQT Corporation, Form S-4A, filed 29 September 2017.
- EQT Corporation, Form CORRESP, filed 29 September 2017.
- EQT Corporation, Form DFAN14A, filed 2 October 2017.
- EQT Corporation, Form SC 13D/A, filed 2 October 2017.
- EQT Corporation, Form 425, filed 3 October 2017.
- EQT Corporation, Form 8-K, filed 3 October 2017.
- EQT Corporation, Form 425, filed 4 October 2017.
- EQT Corporation, Form 8-K, filed 4 October 2017.
- EQT Corporation, Form CORRESP, filed 11 October 2017.
- EQT Corporation, Form UPLOAD, filed 11 October 2017.
- EQT Corporation, Form CORRESP, filed 12 October 2017.
- EQT Corporation, Form 424B3, filed 12 October 2017.
- Rice Energy Inc, Form 425, filed 12 October 2017.
- EQT Corporation, Form CORRESP, filed 13 October 2017.

- EQT Corporation, Form DEFC14A, filed 13 October 2017.
- EQT Corporation, Form DFAN14A, filed 16 October 2017.
- Rice Energy Inc, Form 425, filed 17 October 2017.
- Rice Energy Inc, Form 425, filed 19 October 2017.
- EQT Corporation, Form UPLOAD, filed 19 October 2017.
- Rice Energy Inc, Form 425, filed 23 October 2017.
- EQT Corporation, Form CORRESP, filed 24 October 2017.
- EQT Corporation, Form DFAN14A, filed 24 October 2017.
- EQT Corporation, Form SC 13D/A, filed 24 October 2017.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 September 2017, filed 26 October 2017.
- Rice Energy Inc, Form 425, filed 26 October 2017.
- Rice Energy Inc, Form 425, filed 26 October 2017.
- Rice Energy Inc, Form 425, filed 26 October 2017.
- EQT Corporation, Form 8-K, filed 26 October 2017.
- EQT Corporation, Form 8-K, filed 26 October 2017.
- EQT Corporation, Form DFAN14A, filed 27 October 2017.
- Rice Energy Inc, Form 425, filed 30 October 2017.
- Rice Energy Inc, Form 425, filed 30 October 2017.
- Rice Energy Inc, Form 425, filed 31 October 2017.
- Rice Energy Inc, Form 425, filed 31 October 2017.
- EQT Corporation, Form 8-K, filed 31 October 2017.
- EQT Corporation, Form PX14A6G, filed 31 October 2017.
- EQT Corporation, Form UPLOAD, filed 31 October 2017.
- EQT Corporation, Form UPLOAD, filed 1 November 2017.
- Rice Energy Inc, Form 425, filed 3 November 2017.
- EQT Corporation, Form 8-K, filed 3 November 2017.
- EQT Corporation, Form SC 13D/A, filed 3 November 2017.
- EQT Corporation, Form DFAN14A, filed 3 November 2017.
- EQT Corporation, Form CORRESP, filed 6 November 2017.
- Rice Energy Inc, Form 425, filed 9 November 2017.
- EQT Corporation, Form 8-K, filed 9 November 2017.
- Rice Energy Inc., Form 10-Q, filed 12 November 2017.
- EQT Corporation, Form S-8, filed 13 November 2017.
- EQT Corporation, Form S-8 POS, filed 13 November 2017.
- EQT Corporation, Form 8-K, filed 14 November 2017.
- EQT Corporation, Form UPLOAD, 14 November 2017.

- EQT Corporation, Form SC 13D/A, filed 14 November 2017.
- EQT Corporation, Form SC 13D/A, filed 15 November 2017.
- EQT Corporation, Form 8-K, filed 17 November 2017.
- EQT Corporation, Form 8-K, filed 18 January 2018.
- EQT Corporation, Form 8-KA, filed 22 January 2018.
- EQT Corporation, Form UPLOAD, filed 22 January 2018.
- EQT Corporation, Form SC 13G/A, filed 8 February 2018.
- EQT Corporation, Form SC 13G/A, filed 9 February 2018.
- EQT Corporation, Form SC 13G/A, filed 12 February 2018.
- EQT Corporation, Form SC 13G, filed 14 February 2018.
- EQT Corporation, Form SC 13G/A, filed 14 February 2018.
- EQT Corporation, Form 10-K for the fiscal year ended 31 December 2017, filed 15 February 2018.
- EQT Corporation, Form 8-K, filed 15 February 2018.
- Rice Midstream Partners, Form 425, filed 21 February 2018.
- Rice Midstream Partners, Form 425, filed 21 February 2018.
- EQT Corporation, Form 8-K, filed 21 February 2018.
- EQT Corporation, Form SC 13D/A, filed 22 February 2018.
- EQT Corporation, Form 8-K, filed 20 March 2018.
- EQT Corporation, Form 10-Q for the quarterly period ended 31 March 2018, filed 26 April 2018.
- Rice Midstream Partners, Form 425, filed 26 April 2018.
- Rice Midstream Partners, Form 425, filed 26 April 2018.
- EQT Corporation, Form 8-K, filed 26 April 2018.
- EQT Corporation, Form 8-K, filed 26 April 2018.
- EQT Corporation, Form CORRESP, filed 26 April 2018.
- EQT Corporation, Form DEF-14A, filed 27 April 2018.
- EQT Corporation, Form SC 13D/A, filed 27 April 2018.
- EQT Corporation, Form DEFA14A, filed 2 May 2018.
- EQT Corporation, Form DEFA14A, filed 16 May 2018.
- EQT Corporation, Form UPLOAD, filed 17 May 2018.
- EQT Corporation, Form 8-K, filed 22 May 2018.
- EQT Corporation, Form SC 13D/A, filed 22 May 2018.
- EQT Corporation, Form 8-K, filed 31 May 2018.
- EQT Corporation, Form 11-K, filed 21 June 2018.
- EQT Corporation, Form 8-K, filed 22 June 2018.
- EQT Corporation, Form 8-K, filed 23 July 2018.

- EQT Corporation, Form SC 13D/A, filed 23 July 2018.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 June 2018, filed 26 July 2018.
- EQT Corporation, Form 8-K, filed 26 July 2018.
- EQT Corporation, Form 8-K, filed 9 August 2018.
- EQT Corporation, Form 8-K, filed 4 September 2018.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 September 2018, filed 25 October 2018.
- EQT Corporation, Form 8-K, filed 25 October 2018.
- EQT Corporation, Form 8-K, filed 25 October 2018.
- EQT Corporation, Form 8-K, filed 25 October 2018.
- EQT Corporation, Form 8-K, filed 26 October 2018.
- EQT Corporation, Form 8-K, filed 29 October 2018.
- EQT Corporation, Form 8-K, filed 29 October 2018.
- EQGP Holdings LP, Form 8-K, filed 30 October 2018.
- EQT Corporation, Form 8-K, filed 6 November 2018.
- EQT Corporation, Form 8-K, filed 13 November 2018.
- EQT Corporation, Form SC 13D/A, filed 14 November 2018.
- EQT Corporation, Form SC 13D/A, filed 14 November 2018.
- EQT Corporation, Form SC 13G/A, filed 7 December 2018.
- EQT Corporation, Form DFAN14A, filed 10 December 2018.
- EQT Corporation, Form DFAN14A, filed 10 December 2018.
- EOT Corporation, Form 8-K, filed 7 January 2019.
- EQT Corporation, Form 8-K, filed 22 January 2019.
- EQT Corporation, Form 8-K, filed 22 January 2019.
- EQT Corporation, Form DFAN14A, filed 22 January 2019.
- EQT Corporation, Form DFAN14A, filed 22 January 2019.
- EQT Corporation, Form SC 13G, filed 31 January 2019.
- EQT Corporation, Form SC 13G/A, filed 4 February 2019.
- EQT Corporation, Form DFAN14A, filed 5 February 2019.
- EQT Corporation, Form DFAN14A, filed 5 February 2019.
- EQT Corporation, Form DFAN14A, filed 6 February 2019.
- EQT Corporation, Form DFAN14A, filed 6 February 2019.
- EQT Corporation, Form SC 13G, filed 11 February 2019.
- EQT Corporation, Form SC 13G/A, filed 11 February 2019.
- EQT Corporation, Form SC 13G/A, filed 11 February 2019.
- EQT Corporation, Form SC 13G/A, filed 12 February 2019.

- EQT Corporation, Form DFAN14A, filed 13 February 2019.
- EQT Corporation, Form DFAN14A, filed 13 February 2019.
- EQT Corporation, Form 10-K for the fiscal year ended 31 December 2018, filed 14 February 2019.
- EQT Corporation, Form 8-K, filed 14 February 2019.
- EQT Corporation, Form 8-K, filed 7 March 2019.
- EQT Corporation, Form DEFA14A, filed 21 March 2019.
- EQT Corporation, Form DEFA14A, filed 21 March 2019.
- EQT Corporation, Form DFAN14A, filed 21 March 2019.
- EQT Corporation, Form DFAN14A, filed 21 March 2019.
- EQT Corporation, Form 8-K, filed 25 March 2019.
- EQT Corporation, Form DEFA14A, filed 25 March 2019.
- EQT Corporation, Form DEFA14A, filed 25 March 2019.
- EQT Corporation, Form PREC14A, filed 22 April 2019.
- EQT Corporation, Form S-8, filed 22 April 2019.
- EQT Corporation, Form S-8, filed 22 April 2019.
- EQT Corporation, Form 10-Q for the quarterly period ended 31 March 2019, filed 25 April 2019.
- EQT Corporation, Form 8-K, filed 25 April 2019.
- EQT Corporation, Form DEFA14A, filed 25 April 2019.
- EQT Corporation, Form DEFA14A, filed 25 April 2019.
- EQT Corporation, Form DFAN14A, filed 25 April 2019.
- EQT Corporation, Form DFAN14A, filed 25 April 2019.
- EQT Corporation, Form 10-KA for the fiscal year ended 31 December 2018, filed 29 April 2019.
- EQT Corporation, Form DEFA14A, filed 6 May 2019.
- EQT Corporation, Form DFAN14A, filed 6 May 2019.
- EQT Corporation, Form DEFA14A, filed 8 May 2019.
- EQT Corporation, Form PREC14A, filed 8 May 2019.
- EQT Corporation, Form PRRN14A, filed 8 May 2019.
- EQT Corporation, Form DEFA14A, filed 9 May 2019.
- EQT Corporation, Form DFAN14A, filed 9 May 2019.
- EOT Corporation, Form DEFA14A, filed 15 May 2019.
- EQT Corporation, Form DFAN14A, filed 15 May 2019.
- EQT Corporation, Form UPLOAD, filed 15 May 2019.
- EQT Corporation, Form DEFA14A, filed 16 May 2019.
- EQT Corporation, Form DEFA14A, filed 16 May 2019.

- EQT Corporation, Form PRRN14A, filed 16 May 2019.
- EQT Corporation, Form DFAN14A, filed 17 May 2019.
- EQT Corporation, Form CORRESP, filed 20 May 2019.
- EQT Corporation, Form DEFA14A, filed 20 May 2019.
- EQT Corporation, Form DEFC14A, filed 20 May 2019.
- EQT Corporation, Form DFAN14A, filed 20 May 2019.
- EQT Corporation, Form PRER14A, filed 20 May 2019.
- EQT Corporation, Form DEFC14A, filed 22 May 2019.
- EQT Corporation, Form DEFA14A, filed 23 May 2019.
- EQT Corporation, Form DEFA14A, filed 24 May 2019.
- EQT Corporation, Form DEFA14A, filed 28 May 2019.
- EQT Corporation, Form DEFA14A, filed 30 May 2019.
- EQT Corporation, Form DEFA14A, filed 30 May 2019.
- EQT Corporation, Form DEFA14A, filed 30 May 2019.
- EQT Corporation, Form DEFA14A, filed 30 May 2019.
- EQT Corporation, Form DFAN14A, filed 30 May 2019.
- EQT Corporation, Form 8-K, filed 31 May 2019.
- EQT Corporation, Form DEFA14A, filed 3 June 2019.
- EOT Corporation, Form DEFA14A, filed 3 June 2019.
- EQT Corporation, Form DFAN14A, filed 3 June 2019.
- EQT Corporation, Form UPLOAD, filed 3 June 2019.
- EQT Corporation, Form CORRESP, filed 5 June 2019.
- EQT Corporation, Form DEFA14A, filed 5 June 2019.
- EQT Corporation, Form DEFA14A, filed 5 June 2019.
- EQT Corporation, Form DFAN14A, filed 10 June 2019.
- EQT Corporation, Form DEFA14A, filed 11 June 2019.
- EQT Corporation, Form DEFA14A, filed 11 June 2019.
- EQT Corporation, Form DFAN14A, filed 11 June 2019.
- EQT Corporation, Form DEFA14A, filed 12 June 2019.
- EQT Corporation, Form DEFA14A, filed 12 June 2019.
- EQT Corporation, Form DEFA14A, filed 13 June 2019.
- EQT Corporation, Form DEFA14A, filed 13 June 2019.
- EQT Corporation, Form DEFA14A, filed 17 June 2019.
- EQT Corporation, Form DFAN14A, filed 17 June 2019.
- EQT Corporation, Form DEFA14A, filed 18 June 2019.
- EQT Corporation, Form DEFA14A, filed 18 June 2019.
- EQT Corporation, Form DFAN14A, filed 18 June 2019.

Documents and Other Information Considered

- EQT Corporation, Form DEFA14A, filed 19 June 2019.
- EQT Corporation, Form DEFA14A, filed 19 June 2019.
- EQT Corporation, Form 11-K, filed 20 June 2019.
- EQT Corporation, Form DEFA14A, filed 20 June 2019.
- EQT Corporation, Form DEFA14A, filed 21 June 2019.
- EQT Corporation, Form DFAN14A, filed 21 June 2019.
- EQT Corporation, Form DEFA14A, filed 24 June 2019.
- EQT Corporation, Form DEFA14A, filed 25 June 2019.
- EQT Corporation, Form DFAN14A, filed 25 June 2019.
- EQT Corporation, Form DEFA14A, filed 26 June 2019.
- EQT Corporation, Form DFAN14A, filed 26 June 2019.
- EQT Corporation, Form DEFA14A, filed 27 June 2019.
- EQT Corporation, Form DEFA14A, filed 28 June 2019.
- EQT Corporation, Form DFAN14A, filed 28 June 2019.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 June 2019, filed 25 July 2019.
- EQT Corporation, Form 10-Q for the quarterly period ended 30 September 2019, filed 31 October 2019.
- EQT Corporation, Form 10-K for the fiscal year ended 31 December 2019, filed 27 February 2020.
- EQT Corporation, Form 10-Q for the quarterly period ended 31 March 2020, filed 7 May 2020.

ACADEMIC AND PROFESSIONAL LITERATURE

- Aktas, Nihat, Eric de Bodt, and Jean-Gabriel Cousin, "Event Studies with a Contaminated Estimation Period," *Journal of Corporate Finance*, 2007.
- Atkins, Allen B., and Edward A. Dyl, "Price Reversals, Bid-Ask Spreads, and Market Efficiency," *Journal of Financial and Quantitative Analysis*, Vol. 25, No. 4, 1990.
- Ball, Ray, "Anomalies in Relationships Between Securities' Yield and Yield-Surrogates," *Journal of Financial Economics*, 1978.
- Ball, Ray and S. P. Kothari, "Security Returns around Earnings Announcements," *The Accounting Review*, 1991.
- Ball, Ray and Stephen Brown, "An Empirical Evaluation of Accounting Income Numbers," *Journal of Accounting Research*, 1968.
- Barber, Brad M., Paul A. Griffin, and Baruch Lev, "The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency," *The Journal of Corporation Law*, 1994.

- Beaver, William H., "The Information Content of Annual Earnings Announcements," *Journal of Accounting Research*, Vol. 6, 1968.
- Beaver, William H., *Financial Reporting: An Accounting Revolution*, 3rd Edition, Prentice Hall, 1998.
- Beaver, William H., Maureen F. McNichols, and Zach Z. Wang, "The Information Content of Earnings Announcements: New insights from Intertemporal and Cross-Sectional Behavior," *Review of Accounting Studies*, 2018.
- Beaver, William H., Maureen F. McNichols, and Zach Z. Wang, "Increased Market Response to Earnings Announcements in the 21st Century: An Empirical Investigation," *Journal of Accounting and Economics*, 2020.
- Becker, Josh, Aaron Block, and Patrick Hill, "New Views on Statistical Significance Affect Expert Testimony," *Law360.com*, 23 May 2019.
- Brav, Alon and J.B. Heaton, "Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias," *Washington University Law Review*, 2015.
- Bromberg, Alan R., Lewis D. Lowenfels, and Michael J. Sullivan, *Securities Fraud and Commodities Fraud*, 2nd Edition, *Thomson Reuters*, 2003.
- Campbell, John Y., Andrew W. Lo and A. Craig MacKinlay, *The Econometrics of Financial Markets*, Princeton University Press, 1997.
- Chordia, Tarun, Richard Roll, and Avanidhar Subrahmanyam, "Liquidity and Market Efficiency," *Journal of Financial Economics*, Vol. 87, 2008.
- Degeorge, Francois, Jayendu Patel, and Richard Zeckhauser, "Earnings Management to Exceed Thresholds," *Journal of Business*, 1999.
- Demsetz, Harold, "The Cost of Transacting," *The Quarterly Journal of Economics*, Vol. 82, No. 1, 1968.
- Fama, Eugene F., "Efficient Capital Markets: A Review of Theory and Empirical Work," *Journal of Finance*, 1970.
- Fama, Eugene F., "Efficient Capital Markets: II," Journal of Finance, 1991.
- Ferrillo, Paul, Frederick Dunbar, and David Tabak, "The 'Less Than' Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-On-The-Market Cases," *St. John's Law Review* Vol 78:81, Winter 2004.
- George, Thomas J., and Francis A. Longstaff, "Bid-Ask Spreads and Trading Activity in the S&P 100 Index Options Market," *Journal of Financial and Quantitative Analysis*, Vol. 28, No. 3, 1993.
- Gold, Kevin, Eric Korman, Ahmer Nabi, "Federal Securities Acts and Areas of Expert Analysis," Chapter 27 of the *Litigation Services Handbook: The Role of the Financial Expert*, 6th Edition, edited by Roman Weil, Daniel G. Lentz, and Elizabeth A. Evans, John Wiley & Sons, Inc., 2017.

Documents and Other Information Considered

- Hartzmark, Michael and H. Nejat Seyhun, "The Curious Incident of the Dog That Didn't Bark and Establishing Cause-and-Effect in Class Action Securities Litigation," *Va. L & Bus. Rev.*, Vol. 6, No. 3, 2012.
- Kaye, David, and David Freedman, "Reference Guide on Statistics," *Reference Manual on Sceintific Evidence*, 3rd Edition, 2011.
- Kennedy, Peter, A Guide to Econometrics, 6th Edition, Blackwell Publishing, 2008.
- Larcker, David F., Lawrence A. Gordon, and George E. Pinches, "Testing for Market Efficiency: A Comparison of the Cumulative Average Residual Methodology and Intervention Analysis," *Journal of Financial & Quantitative Analysis*, Vol. 15, No. 2, 1980.
- Patell, James M., and Mark A. Wolfson, "The Intraday Speed of Adjustment of Stock Prices to Earnings and Dividend Announcements," *Journal of Financial Economics*, 1984.
- Reilly, Frank and Keith Brown, "Organization and Functioning of Securities Markets," *Equity and Fixed Income CFA Program Curriculum*, Vol. 5, Pearson Custom Publishing, 2008.
- Tabak, David I., and Frederick C. Dunbar, "Materiality and Magnitude: Event Studies in the Courtroom," in *Litigation Services Handbook: The Role of the Financial Expert*, 3rd Edition, edited by Roman L. Weil, Michael J. Wagner, and Peter B. Frank, John Wiley & Sons, Inc., 2001.
- Villanueva, Miguel and Steven Feinstein, "Stock Price Reactivity to Earnings Announcements: The Role of the *Cammer/Krogman* Factors," *Review of Quantitative Finance and Accounting*, 2020 (currently published online and forthcoming in print).
- Watts, Ross L., "Systematic Abnormal Returns After Quarterly Earnings Announcements," *Journal of Financial Economics*, 1978.

CONFERENCE CALLS

- "Q4 2016 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 2 February 2017.
- "Q1 2017 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 27 April 2017.
- "Q2 2017 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 27 July 2017.
- "EQT Corp to Acquire Rice Energy Inc Conference Call," *Thomson Reuters*, conference call, 19 June 2017.
- "Q3 2017 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 26 October 2017.
- "Q4 2017 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 15 February 2018.

Documents and Other Information Considered

- "EQT Corp Announces Plan to Separate Midstream Business Conference Call," *Thomson Reuters*, conference call, 21 February 2018.
- "Q1 2018 EQT Corp Earnings Call," Thomson Reuters, conference call, 26 April 2018.
- "Q2 2018 EQT Corp Earnings Call," Thomson Reuters, conference call, 26 July 2018.
- "Q3 2018 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 25 October 2018.
- "EQT Corp 2019 Guidance Call and Updated Analyst Presentation," *Thomson Reuters*, conference call, 22 January 2019.
- "EQT Corp Call to Discuss Plan for EQT," *Thomson Reuters*, conference call, 5 February 2019.
- "Q4 2018 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 14 February 2019.
- "Q1 2019 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 25 April 2019.
- "Q2 2019 EQT Corp Earnings Call," Thomson Reuters, conference call, 25 July 2019.
- "Q3 2019 EQT Corp Earnings Call," *Thomson Reuters*, conference call, 31 October 2019.

DATA AND DATABASES

- Bloomberg
- Capital IQ
- CRSP (Center for Research in Security Prices)
- EDGAR
- Factiva
- FactSet
- Thomson Eikon

LEGAL CASES

- Amgen Inc., et al. v. Connecticut Retirement Plans & Trust Funds, 133 S. Ct. 1184, 1190 (2013).
- Basic, Inc. v. Levinson, 485 U.S. 224 (1988).
- *Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989).
- Cheney v. Cyberguard Corp., 213 F.R.D. 484, 499 (S.D. Fla. 2003).
- City of Cape Coral Municipal Firefighters' Retirement Plan, et al., v. Emergent Biosolutions, Inc., HQ, et al., 16-cv-2625, 2018 WL 2840420 (D. Md. 2018).
- Di Donato v. Insys Therapeutics, No. CV-16-00302-PHX-NVW (2019).

Documents and Other Information Considered

- Halliburton Co. v. Erica P. John Fund, Inc., 134 S. Ct. 2398, 2410, (2014).
- In re Advance Auto Parts, Inc. Sec. Litig., No. 18-212, 2020 WL 6544637 (D. Del. Nov. 6, 2020).
- *In re Alstom SA Sec. Litig.*, 253 F.R.D. 266, 280 (S.D.N.Y. 2008).
- In re Banc of California Sec. Litig., No. 8:17-cv-00118-AG-DFM (C.D. Cal. May 31, 2018).
- In re Petrobras Sec. Litig., 312 F.R.D. 354 (S.D.N.Y. Feb. 2, 2016).
- Krogman v. Sterritt, 202 F.R.D. 467 (N.D. Tex. 2001).
- Lehocky v. Tidel Techs., Inc., 220 F.R.D. 491, 506 (S.D. Tex. 2004).
- McIntire v. China MediaExpress Holdings, Inc., 38 F. Supp. 3d 415, 430 (S.D.N.Y. 2014).
- Pope v. Navient Corporation et al., Civil No. 17-8373-RBK-AMD, (D.N.J. Mar. 11, 2021).
- Roofer's Pension Fund v. Papa, No. 16-2805, 2018 WL 3601229 (D.N.J. July 27, 2018).
- Smilovits v. First Solar, Inc., No. CV12-00555-PHX-DGC (D. Ariz. Oct. 8, 2013).
- *Unger v. Amedisys*, 401 F.3d 316 (5th Cir. 2005).
- Vinh Nguyen v. Radient Pharmaceuticals Corp., 287 F.R.D. 563, 573 (C.D. Cal. 2012).
- Waggoner v. Barclays PLC, 875 F.3d 79 (2d Cir. 2017).

OTHER

- 15 U.S.C. § 77k.
- 15 U.S.C. § 78t-1(a).
- 17 C.F.R. § 240.14a-9.
- 15 U.S.C. § 771(a)(2).
- 15 U.S.C. § 78t-1(b)(1).
- "Brief of Financial Economists as Amici Curiae in Support of Respondents," *Halliburton Co. and David Lesar v., Erica P. John Fund, Inc., F/K/A Archdiocese of Milwaukee Supporting Fund, Inc., 5* February 2014.
- "Brief of Testifying Economists as Amici Curiae in Support of Respondent," *Halliburton Co. and David Lesar vv., Erica P. John Fund, Inc., F/K/A Archdiocese of Milwaukee Supporting Fund, Inc.*, 5 February 2014.
- "Fact Sheet; Designated Market Makers," NYSE Euronext, 2012.
- Form S-4, Registration Statement Under the Securities Act of 1933, https://www.sec.gov/about/forms/forms-4.pdf.
- H. R. Rep. No. 85, 73d Cong., 1st Sess., 9 (1933).
- Louis Loss & Joel Seligman, Securities Regulation §11 C.2 (3d ed. 2006).

- "Nasdaq to Enable Customers to Trade NYSE Stocks," *Reuters*, 28 March 2005.
- Private Securities Litigation Reform Act of 1995 (15 U.S.C. § 78u-4(e)).
- "Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3," SEC Release No. 33-8878, 19 December 2007.
- SEC Form 4, filed by Porges, David L, dated 20 November 2017.
- Section 10(b) of the Securities Exchange Act of 1934.
- Section 11 of the Securities Act of 1933.
- Section 12(a)(2) of the Securities Act of 1933.
- Section 14(a) of the Securities Exchange Act of 1934.
- Section 15 of the Securities Exchange Act of 1933.
- Section 20(a) of the Securities Exchange Act of 1934.
- Section 20A of the Securities Exchange Act of 1934.
- Other documents cited in report.

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EDUCATION

| 1989 | YALE UNIVERSITY Ph.D. in Economics (Concentration in Finance) |
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| 1986 | YALE UNIVERSITY M.Phil. in Economics |

1983 YALE UNIVERSITY M.A. in Economics

1981 POMONA COLLEGE B.A. in Economics (Phi Beta Kappa, *cum laude*)

TEACHING EXPERIENCE

| 1996 - present | BABSON COLLEGE |
|----------------|--|
| | Babson Park, MA |
| | Full-time Faculty, Finance Division |
| | Associate Professor (2000-present) |
| | Donald P. Babson Chair in Applied Investments (2002-2010) |
| | Faculty Director of the Babson College Fund (2002-2009) |
| | Director of the Stephen D. Cutler Investment Management Center |
| | (2002-2007) |
| | Assistant Professor (1996-2000) |
| 1990 - 1995 | BOSTON UNIVERSITY SCHOOL OF MANAGEMENT |
| | Boston, MA |
| | Full-time Faculty, Department of Finance |
| 1993 - 1994 | WASHINGTON UNIVERSITY, OLIN SCHOOL OF BUSINESS |
| | St. Louis, MO |
| | Visiting Assistant Professor, Department of Finance |

BUSINESS EXPERIENCE

2008 - present CROWNINSHIELD FINANCIAL RESEARCH, INC.

Brookline, MA

President and Senior Expert

1996 - 2008 THE MICHEL-SHAKED GROUP

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1987 - 1990 FEDERAL RESERVE BANK OF ATLANTA

Economist

PROFESSIONAL DESIGNATIONS

1998 Awarded the Chartered Financial Analyst designation by the Association for Investment Management and Research.

RESEARCH AWARDS

1999 Greater Boston Real Estate Board/Real Estate Finance Association – Research Grant and Featured Speaker at Real Estate Finance Association Meetings.

PAPERS AND PUBLICATIONS

"Stock Price Reactivity to Earnings Announcements: The Role of the Cammer/Krogman Factors," (with Miguel Villanueva) *Review of Quantitative Finance and Accounting*, *Springer.com*, October 22, 2020. Available from https://doi.org/10.1007/s11156-020-00943-4. Forthcoming in print.

"What A Solar Eclipse Has To Do With Market Efficiency," (with Daniel Bettencourt) *Law360.com*, 2017.

"Underestimation of Securities Fraud Aggregate Damages Due to Inter-Fund Trades," (with Gang Hu, Mark Marcus, and Zann Ali) *Journal of Forensic Economics*, September 2013, Vol. 24, No. 2, 161-173.

"Lehman Equity Research Tipping: Evidence in the Stock Price Data," Working paper, March 2010. Cited in *New York Times* May 19, 2012, and made available on the *New York Times* website.

"Distortion in Corporate Valuation: Implications of Capital Structure Changes," (with Allen Michel and Jacob Oded) *Managerial Finance*, 2011, Vol. 37(8), 681-696.

- "Market Signals of Investment Unsuitability," (with Alexander Liss and Steven Achatz) Law360.com, June 3, 2010. Available from http://www.law360.com/articles/170690.
- "Planning Capital Expenditure," in *The Portable MBA in Financing and Accounting*, J. L. Livingstone and T. Grossman, editors, New York: Wiley, 3rd edition 2001, and 4th edition 2009.
- "Financial Management of Risks," in *The Portable MBA in Financing and Accounting*, J. L. Livingstone and T. Grossman, editors, New York: Wiley, 2nd edition 1997, 3rd edition 2001, and 4th edition 2009.
- "Fraud-on-the-Market Theory: Is a Market Efficient?" (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, May 2005.
- "Valuation of Credit Guarantees," (with Allen J. Michel and Israel Shaked). *Journal of Forensic Economics* 17(1), pp. 17-37, 2005.
- "A Better Understanding of why NPV Undervalues Managerial Flexibility," (with Diane Lander) in *The Engineering Economist*, 2002, Volume 47, Number 4.
- "Teaching the Strong-Form Efficient Market Hypothesis: A Classroom Experiment," *Journal of Financial Education*, fall 2000.
- A Future for Real Estate Futures: Potential Applications of Derivatives in Real Estate Investment and Finance (with Linda Stoller). Monograph. Boston: Real Estate Finance Association / Greater Boston Real Estate Board, May 2000.
- "The Risk Budget: Using Your Human Resources," (with John Marthinsen and John Edmunds) *Risk Management*, April 2000.
- "Scenario Learning: A Powerful Tool for the 21st Century Planner," (with Jeffrey Ellis and Dennis Stearns) *The Journal of Financial Planning*, April 2000.
- "Protecting Future Product Liability Claimants in the Case of Bankruptcy," (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, January 2000.
- "Measuring Risk with the Bodie Put When Stocks Exhibit Mean Reversion," *The Journal of Risk*, Vol. 1, No. 3, 1999.
- "Just-in-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics," (with Gordon Prichett) *Primus*, Vol. IX, No. 2, June 1999.
- Atlanta Park Medical Center v. Hamlin Asset Management. (with Natalie Taylor). Babson Case Collection, Harvard Business School Press, 1998.

"Dealing with Delta," *Derivatives Week*, VII, No. 44, November 2, 1998.

"Expected Return in Option Pricing: A Non-Mathematical Explanation," *Derivatives Week*, VII, No. 35, August 31, 1998.

"When Hedges Fail: The Put Paradox and its Solution," *Derivatives Quarterly*, Vol. 4, No. 2, Winter 1997.

Finance and Accounting for Project Management. New York: American Management Association, 1996.

"International Investing," in *Irwin's Directory of Emerging Market Brokerages*. New York: Irwin, 1996.

"The Hull and White Implied Volatility," Boston University Working Paper #92-51, 1992.

"Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment," (with Don Smith) in *Financial Systems and Risk Management*, the proceedings of the US-Japan Forum on Financial Strategy in the 1990s, sponsored by Osaka Foundation of International Exchange and Boston University, August 1991.

"Covered Call Options: A Proposal to Ease LDC Debt," (with Peter Abken) Federal Reserve Bank of Atlanta Economic Review, March/April 1990. Reprinted in Financial Derivatives: New Instruments and Their Uses. Atlanta: Federal Reserve Bank.

"Forecasting Stock-Market Volatility Using Options on Index Futures," *Federal Reserve Bank of Atlanta Economic Review*, May/June 1989. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

"The Black-Scholes Formula is Nearly Linear in Sigma for At-the-Money Options; Therefore Implied Volatilities from At-the-Money Options are Virtually Unbiased," Federal Reserve Bank of Atlanta Working Paper #88-9, December 1988.

"The Effect of the 'Triple Witching Hour' on Stock Market Volatility," (with William Goetzmann) *Federal Reserve Bank of Atlanta Economic Review*, September/October 1988. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

"Stock Market Volatility," Federal Reserve Bank of Atlanta Economic Review, November/December 1987.

Book review of *In Who's Interest: International Banking and American Foreign Policy*, by Benjamin J. Cohen, Yale University Press, in *Federal Reserve Bank of Atlanta Economic Review*, Summer 1987.

PRESENTATIONS

- "Stock Price Reactivity to Earnings Announcements: A Cross-Sectional Analysis of the *Cammer/Krogman* Factors," (with Miguel Villanueva) at the Boston Area Finance Symposium, April 2018.
- "Stock Price Reactivity to Earnings Announcements: A Cross-Sectional Analysis of the *Cammer/Krogman* Factors," (with Miguel Villanueva) at the Eastern Finance Association Conference, April 2018.
- "Determining the Defendant's Ability to Pay," at Taxpayers Against Fraud Education Fund Conference, October 2010.
- "The Computation of Damages in Securities Fraud Cases," at the Grant and Eisenhofer Institutional Investor Conference, December 2002.
- "The Role of the Financial Expert in Complex Litigation," at the Financial Management Association Conference, October 2000.
- "Entrepreneurial Incentives and Resource Allocation Among Corporate Venturing Initiatives," (with Joel Shulman and U. Srinivasa Rangan), Babson Entrepreneurship Research Conference, May 2000.
- "Application of Real Options in Purchasing Strategies," (with Juan Orozco), presented at the International Applied Business Research Conference, March 2000.
- "A Future for Real Estate Futures," (with Linda Stoller) at the Fairfield County chapter of the Real Estate Finance Association, November 1999, and at the Greater Boston Real Estate Board, November 2000.
- "Atlanta Park Medical Center v. Hamlin Asset Management," (with Natalie Taylor) at the 1999 convention of the North American Case Research Association.
- "Using Future WorldsTM in the Financial Planning Process," (with Jeffrey Ellis) at the Institute of Certified Financial Planners Masters Retreat, October 1999.

"Toward a Better Understanding of Real Options: A Weighted Average Discount Rate Approach," at the 1999 Financial Management Association Conference, the 1999 European Financial Management Association Conference, and the 1999 Multinational Finance Society Conference.

"Just-In-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics," (with Gordon Prichett) at the 1999 Financial Management Association Conference.

"Alternative Dow Investments for the Individual Investor: Diamonds, Synthetics, and the Real Thing," at the 1999 Academy of Financial Services Convention. "Evidence of Yield Burning in Municipal Refundings," at Financial Management Association Convention, October 1997; Government Finance Officers Association, 1997; and Northeast Regional Convention of the National Association of State Treasurers, 1997.

"Teaching the Strong-Form Efficient Market Hypothesis," at Conference on Classroom Experiments in the Teaching of Economics at University of Virginia, September 1995.

"Efficient Consolidation of Implied Standard Deviations," (with Shaikh Hamid) at Midwest Finance Association, March 1995.

"A Test of Intertemporal Averaging of Implied Volatilities," (with Shaikh Hamid) at Eastern Finance Association, April 1995.

"Taking Advantage of Volatility: Non-linear Forecasting and Options Strategies," (with Hassan Ahmed) at Chicago Board of Trade / Chicago Board Options Exchange Conference on Risk Management, February 1992.

"Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment," (with Don Smith) at Japan-U.S. Conference on Financial Strategies in the 1990s, Osaka, Japan, August 1991.

"The Hull and White Implied Volatility," at American Finance Association Convention, December 1990.

REVIEWED ARTICLES AND BOOKS FOR:

Harvard Business School Publishing Elsevier Journal of Economic Education Journal of Forensic Economics Journal of Risk

Financial Review

North American Case Research Association

Financial Management

Journal of Business

Journal of Money, Credit and Banking

Quarterly Review of Economics and Finance

Blackwell

Prentice Hall

Southwestern Publishing

COURSES TAUGHT

Capital Markets

Mod B: Decision Making and Applications, Finance stream (MBA)

Financial Reporting and Corporate Finance (MBA)

Valuation (MBA)

Investments (MBA and Executive)

Equity Markets (MBA)

Fixed Income Analysis (Undergraduate and MBA)

Babson College Fund (Undergraduate and MBA)

Options and Futures (Undergraduate)

Advanced Derivative Securities (MBA)

Corporate Finance (MBA and Executive)

Financial Management (MBA)

Risk Management (MBA)

Corporate Financial Strategy (MBA)

Integrated Management (Undergraduate)

Cross-Functional Management (Integrated curriculum, Undergraduate)

Continuous-Time Finance (Doctoral)

Portfolio Theory / Management Information Systems (Executive)

Quantitative Methods for Investment Management (Undergraduate and MBA)

Introduction to Derivative Securities (Executive)

International Finance (Executive)

TEACHING AWARDS

Reid Teaching Award, Washington University, Olin School of Business, 1993-94.

SELECT LIST OF MEDIA CITATIONS

- "Is Insider Trading Part of the Fabric?" by Gretchen Morgenson, *The New York Times*, May 19, 2012.
- "Bankers Rigging Municipal Contract Bids Admit to Cover-Up Lies," by William Selway and Martin Z. Braun, *Bloomberg Markets Magazine*, November 24, 2010.
- "Hospital Move Presents Buy-Out Groups with New Risks," by Francesco Guerra, Christopher Bowe, and Rebecca Knight, *Financial Times*, July 15, 2006.
- "Funds of Knowledge Add Value," by Rebecca Knight, *Financial Times*, March 12, 2006.
- "City's Financial Picture Worse Than Ever, Sanders Says," by Matthew T. Hall, *San Diego Union-Tribune*, January 7, 2006.
- "Downer: Stock Market Takes Another Dive," by John Chesto, *Boston Herald*, July 23, 2002.
- "Banks, Developers, Are Main Beneficiaries," [editorial column] by Steven Feinstein, *The Boston Globe*, March 31, 2002, p. C4.
- "Washington Investing: What Michael Saylor is Really Worth," by Jerry Knight, *The Washington Post*, March 6, 2000.
- "IBM Retools Pensions," by Stephanie Armour, USA Today, May 4, 1999.
- "L.A. MTA's Law Firm Says Lissack Strategy Will be a Replay," by Andrea Figler, *Bond Buyer*, September 30, 1998.
- "Fed Key Player in Rescue of Floundering Hedge Fund," by Andrew Fraser, Associated Press, September 25, 1998.
- "Top Banks Plan Bailout for Fund," by Andrew Fraser, Associated Press, September 24, 1998.
- "Clarion Call to the Small Investor," by Jo-Ann Johnston, *The Boston Globe*, March 4, 1998.
- "L.A. Authority Study Shows Rampant Yield Burning Abuse," by Michael Stanton, *The Bond Buyer*, April 22, 1997.

"Dispute Over Yield Burning Dominates GFOA Session," by Michael Stanton, *The Bond Buyer*, January 29, 1997.

"Men Behaving Badly (Yield Burning)," *Grants Municipal Bond Observer*, January 24, 1997.

"Municipal Bond Dealers Face Scrutiny," by Peter Truell, *The New York Times*, December 17, 1996.

"Iowa Market Takes Stock of Presidential Candidates," by Stanley W. Angrist, *The Wall Street Journal*, August 28, 1995.

"Looking for Clues in Options Prices," by Sylvia Nasar, *The New York Times*, July 18, 1991.

"For Fed, A New Set of Tea Leaves," by Sylvia Nasar, *The New York Times*, July 5, 1991.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Finance Association

CFA Society Boston

Chartered Financial Analyst Institute

Financial Management Association

Foundation for Advancement of Research in Financial Economics (founding member)

National Association of Forensic Economics

North American Case Research Association

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Medtronic, Inc. Securities Litigation Master File No. 0:13-cv-01686-JRT-FLN United States District Court District of Minnesota Deposition Testimony April 2017 Deposition Testimony May 2018

In Re LSB Industries, Inc. Securities Litigation Master File No. 1:15-cv-07614-RA United States District Court Southern District of New York Deposition Testimony June 2017

In Re Resource Capital Corp. Securities Litigation Master File No. 1:15-cv-07081-LLS United States District Court Southern District of New York Deposition Testimony July 2017

In Re Marvell Technology Group, Ltd. Securities Litigation Master File No. 5:15-cv-05447-WHA United States District Court Northern District of California Deposition Testimony August 2017

In Re Eletrobras Securities Litigation Master File No. 1:15-cv-5754-JGK United States District Court Southern District of New York Deposition Testimony September 2017

In Re Insulet Corporation Securities Litigation Master File No. 15-12345-MLW United States District Court District of Massachusetts Deposition Testimony October 2017

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Deutsche Bank AG Securities Litigation Master File No. 1:09-cv-01714-DAB United States District Court Southern District of New York Deposition Testimony January 2018

In Re El Pollo Loco Holdings, Inc. Securities Litigation Case No. 8:15-cv-01343-DOC-KES United States District Court Central District of California Deposition Testimony February 2018

In Re Federal Home Loan Mortgage Corporation Securities Litigation Master File No. 4:08-cv-00160-BYP United States District Court Northern District of Ohio Eastern Division Deposition Testimony August 2017 Deposition Testimony November 2017 Testimony at Evidentiary Hearing April 2018

In Re BHP Billiton Limited Securities Litigation Civil Action No. 1:16-cv-01445-NRB United States District Court Southern District New York Deposition Testimony April 2018

In Re Community Health Systems Securities Litigation Case No. 11-cv-0433 United States District Court Middle District of Tennessee Deposition Testimony June 2018

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Orbital ATK, Inc. Securities Litigation Case No. 1:16-cv-01031-TSE-MSN United States District Court Eastern District of Virginia Deposition Testimony July 2018

In Re Correction Corporation of America Securities Litigation Case No. 3:16-cv-02267 United States District Court Middle District of Tennessee Deposition Testimony July 2018

In Re SunEdison, Inc. Securities Litigation Case No. 16-md-2742-PKC United States District Court Southern District of New York Deposition Testimony July 2018

In Re Flower Foods, Inc. Securities Litigation Case No. 7:16-CV-00222-WLS United States District Court Middle District of Georgia Valdosta Division Deposition Testimony September 2018

In Re Inovalon Holdings, Inc. Securities Litigation Case No. 1:16-cv-04923-VM United States District Court Southern District of New York Deposition Testimony December 2018

In Re First Solar, Inc. Securities Litigation Case No. 2:12-cv-00555-DGC United States District Court District of Arizona Deposition Testimony January 2019

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Puma Biotechnology, Inc. Securities Litigation
Case No. 8:15-cv-00865-AG-JLG
United States District Court
Central District of California
Deposition Testimony
April 2017
Deposition Testimony
June 2018
Trial Testimony
January 2019

In Re Seaworld Entertainment, Inc. Securities Litigation Case No. 3:14-cv-02129-MMA-AGS United States District Court Southern District of California Deposition Testimony March 2019

In Re Southern Company Securities Litigation Case No. 1:17-cv-00241-MHC United States District Court Northern District of Georgia Atlanta Division Deposition Testimony December 2018 Testimony at Evidentiary Hearing May 2019

In Re American Realty Capital Properties, Inc. Securities Litigation Master File No. 1:14-cv-08668-ER
United States District Court
Southern District of New York
Deposition Testimony
June 2017
Testimony at Evidentiary Hearing
August 2017

In Re Equifax, Inc. Securities Litigation Consolidated Case No. 1:17-Cv-03463-TWT United States District Court Northern District of Georgia Atlanta Division Deposition Testimony July 2019

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Twitter, Inc. Securities Litigation Case No. 3:16-cv-05314-JST United States District Court Northern District of California San Francisco Division Deposition Testimony September 2019

In Re Chemical And Mining Company Of Chile, Inc. Securities Litigation Case No. 1:15-cv-02106-ER-GWG United States District Court Southern District of New York Deposition Testimony October 2019

In Re OvaScience, Inc. Securities Litigation Case No. 1:17-cv-10511-IT United States District Court District of Massachusetts Deposition Testimony December 2019

In Re Grupo Televisa Securities Litigation Civil Action No. 1:18-cv-01979-LLS United States District Court Southern District Of New York Deposition Testimony April 2020

In Re Blackberry Limited Securities Litigation Case No. 13-cv-07060-CM-KHP United States District Court Southern District Of New York Deposition Testimony July 2018 Deposition Testimony July 2020

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Microchip Technology, Inc. Securities Litigation Case No. 2:18-cv-02914-JJT United States District Court District of Arizona Deposition Testimony October 2020

In Re Johnson & Johnson Securities Litigation Civil Action No. 3:18-cv-01833-FLW-TJB United States District Court District of New Jersey Deposition Testimony October 2020

In Re Envision Healthcare Corporation Securities Litigation Civil Action No. 3:17-cv-01112 United States District Court Middle District of Tennessee Nashville Division Deposition Testimony January 2021

In Re Novo Nordisk Securities Litigation Civil Action No. 3:17-cv-209-BRM-LHG United States District Court District of New Jersey Deposition Testimony February 2021

In Re Jeld-Wen Holding, Inc. Securities Litigation Civil Action No. 3:20-cv-00112-JAG United States District Court Eastern District of Virginia Richmond Division Deposition Testimony January 2021 Deposition Testimony February 2021

Steven P. Feinstein, Ph.D., CFA Testimony Provided in the Last Four Years

In Re Vale S.A. Securities Litigation Civil Action No. 19-cv-526-RJD-SJB United States District Court Eastern District if New York Deposition Testimony March 2020

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 6/19/2017 | \$53.51 | \$53.50 | \$53.51 | 22,189,563 | -9.38% |
| 6/20/2017 | \$52.42 | \$52.41 | \$52.42 | 10,596,280 | -2.06% |
| 6/21/2017 | \$50.83 | \$50.83 | \$50.84 | 10,582,478 | -3.08% |
| 6/22/2017 | \$52.03 | \$52.03 | \$52.04 | 10,100,829 | 2.33% |
| 6/23/2017 | \$56.19 | \$56.18 | \$56.19 | 7,680,587 | 7.69% |
| 6/26/2017 | \$58.35 | \$58.34 | \$58.35 | 5,608,600 | 3.77% |
| 6/27/2017 | \$58.27 | \$58.27 | \$58.29 | 6,763,596 | -0.14% |
| 6/28/2017 | \$58.75 | \$58.74 | \$58.75 | 3,992,848 | 0.82% |
| 6/29/2017 | \$59.01 | \$59.02 | \$59.03 | 4,875,684 | 0.44% |
| 6/30/2017 | \$58.59 | \$58.59 | \$58.60 | 3,887,325 | -0.71% |
| 7/3/2017 | \$59.75 | \$59.75 | \$59.76 | 6,730,337 | 1.96% |
| 7/5/2017 | \$59.79 | \$59.78 | \$59.79 | 6,736,003 | 0.07% |
| 7/6/2017 | \$59.00 | \$59.01 | \$59.02 | 5,480,347 | -1.33% |
| 7/7/2017 | \$58.74 | \$58.80 | \$58.81 | 5,494,472 | -0.44% |
| 7/10/2017 | \$59.90 | \$59.89 | \$59.90 | 4,065,189 | 1.96% |
| 7/11/2017 | \$61.04 | \$61.04 | \$61.05 | 3,994,876 | 1.89% |
| 7/12/2017 | \$61.23 | \$61.23 | \$61.24 | 4,958,435 | 0.31% |
| 7/13/2017 | \$61.70 | \$61.71 | \$61.72 | 2,867,599 | 0.76% |
| 7/14/2017 | \$61.88 | \$61.85 | \$61.86 | 1,931,712 | 0.29% |
| 7/17/2017 | \$62.17 | \$62.15 | \$62.16 | 2,222,295 | 0.47% |
| 7/18/2017 | \$61.15 | \$61.18 | \$61.19 | 2,153,248 | -1.65% |
| 7/19/2017 | \$62.52 | \$62.54 | \$62.55 | 3,870,685 | 2.22% |
| 7/20/2017 | \$61.96 | \$62.02 | \$62.04 | 4,244,660 | -0.90% |
| 7/21/2017 | \$62.94 | \$62.94 | \$62.95 | 4,642,549 | 1.57% |
| 7/24/2017 | \$63.08 | \$63.11 | \$63.12 | 2,866,224 | 0.22% |
| 7/25/2017 | \$64.06 | \$64.06 | \$64.07 | 3,294,830 | 1.54% |
| 7/26/2017 | \$63.97 | \$63.98 | \$64.00 | 2,705,350 | -0.14% |
| 7/27/2017 | \$67.02 | \$67.05 | \$67.06 | 6,355,146 | 4.66% |
| 7/28/2017 | \$66.10 | \$66.09 | \$66.10 | 4,482,366 | -1.38% |
| 7/31/2017 | \$63.70 | \$63.74 | \$63.75 | 4,461,241 | -3.70% |
| 8/1/2017 | \$63.93 | \$63.92 | \$63.93 | 2,568,551 | 0.36% |
| 8/2/2017 | \$63.01 | \$63.00 | \$63.01 | 2,155,383 | -1.45% |
| 8/3/2017 | \$62.12 | \$62.14 | \$62.15 | 3,499,279 | -1.42% |
| 8/4/2017 | \$62.46 | \$62.45 | \$62.46 | 2,727,328 | 0.55% |
| 8/7/2017 | \$61.66 | \$61.65 | \$61.66 | 2,879,588 | -1.29% |
| 8/8/2017 | \$62.78 | \$62.80 | \$62.81 | 4,378,691 | 1.80% |
| 8/9/2017 | \$62.71 | \$62.71 | \$62.72 | 2,652,566 | -0.06% |
| 8/10/2017 | \$62.07 | \$62.07 | \$62.08 | 1,663,753 | -1.03% |
| 8/11/2017 | \$62.93 | \$62.93 | \$62.94 | 1,313,096 | 1.38% |
| 8/14/2017 | \$61.82 | \$61.79 | \$61.80 | 2,330,825 | -1.78% |
| 8/15/2017 | \$61.05 | \$61.03 | \$61.04 | 2,978,737 | -1.25% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|------------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 8/16/2017 | \$60.76 | \$60.75 | \$60.76 | 1,990,053 | -0.48% |
| 8/17/2017 | \$61.05 | \$61.05 | \$61.06 | 2,886,007 | 0.48% |
| 8/18/2017 | \$60.25 | \$60.25 | \$60.26 | 3,441,117 | -1.32% |
| 8/21/2017 | \$60.18 | \$60.16 | \$60.17 | 2,639,361 | -0.12% |
| 8/22/2017 | \$61.26 | \$61.25 | \$61.26 | 2,384,910 | 1.78% |
| 8/23/2017 | \$61.04 | \$61.04 | \$61.05 | 2,739,708 | -0.36% |
| 8/24/2017 | \$61.28 | \$61.27 | \$61.28 | 1,100,892 | 0.39% |
| 8/25/2017 | \$61.06 | \$61.04 | \$61.05 | 1,860,530 | -0.36% |
| 8/28/2017 | \$60.83 | \$60.82 | \$60.83 | 1,324,847 | -0.38% |
| 8/29/2017 | \$61.18 | \$61.19 | \$61.20 | 1,029,774 | 0.57% |
| 8/30/2017 | \$61.78 | \$61.77 | \$61.78 | 1,399,550 | 0.98% |
| 8/31/2017 | \$62.34 | \$62.32 | \$62.33 | 1,679,424 | 0.90% |
| 9/1/2017 | \$62.61 | \$62.58 | \$62.60 | 1,776,219 | 0.43% |
| 9/5/2017 | \$62.69 | \$62.71 | \$62.72 | 3,499,192 | 0.13% |
| 9/6/2017 | \$62.92 | \$62.91 | \$62.92 | 1,966,426 | 0.37% |
| 9/7/2017 | \$62.11 | \$62.10 | \$62.11 | 1,940,994 | -1.30% |
| 9/8/2017 | \$60.67 | \$60.67 | \$60.68 | 3,677,877 | -2.35% |
| 9/11/2017 | \$60.98 | \$60.97 | \$60.98 | 2,992,234 | 0.51% |
| 9/12/2017 | \$62.23 | \$62.23 | \$62.24 | 2,434,070 | 2.03% |
| 9/13/2017 | \$63.11 | \$63.04 | \$63.05 | 4,418,815 | 1.40% |
| 9/14/2017 | \$64.87 | \$64.87 | \$64.88 | 6,870,340 | 2.75% |
| 9/15/2017 | \$64.86 | \$64.84 | \$64.85 | 3,225,072 | -0.02% |
| 9/18/2017 | \$64.32 | \$64.33 | \$64.34 | 2,325,857 | -0.84% |
| 9/19/2017 | \$64.12 | \$64.13 | \$64.14 | 2,254,865 | -0.31% |
| 9/20/2017 | \$64.50 | \$64.49 | \$64.50 | 4,171,559 | 0.59% |
| 9/21/2017 | \$63.84 | \$63.83 | \$63.84 | 3,931,032 | -1.03% |
| 9/22/2017 | \$64.26 | \$64.25 | \$64.26 | 2,202,770 | 0.66% |
| 9/25/2017 | \$64.45 | \$64.44 | \$64.45 | 2,065,692 | 0.30% |
| 9/26/2017 | \$64.95 | \$64.96 | \$64.97 | 3,062,496 | 0.77% |
| 9/27/2017 | \$65.28 | \$65.27 | \$65.28 | 2,428,689 | 0.51% |
| 9/28/2017 | \$65.06 | \$65.06 | \$65.07 | 3,078,715 | -0.34% |
| 9/29/2017 | \$65.24 | \$65.26 | \$65.27 | 2,628,981 | 0.28% |
| 10/2/2017 | \$65.36 | \$65.35 | \$65.36 | 2,608,806 | 0.18% |
| 10/3/2017 | \$64.21 | \$64.21 | \$64.22 | 1,969,696 | -1.78% |
| 10/4/2017 | \$64.21 | \$64.24 | \$64.25 | 4,307,605 | 0.00% |
| 10/5/2017 | \$65.05 | \$65.06 | \$65.07 | 3,254,977 | 1.30% |
| 10/6/2017 | \$63.61 | \$63.60 | \$63.61 | 5,028,964 | -2.24% |
| 10/9/2017 | \$62.90 | \$62.89 | \$62.90 | 3,490,691 | -1.12% |
| 10/10/2017 | \$62.88 | \$62.87 | \$62.88 | 2,936,949 | -0.03% |
| 10/11/2017 | \$63.10 | \$63.09 | \$63.10 | 1,811,873 | 0.35% |
| 10/12/2017 | \$63.49 | \$63.48 | \$63.49 | 2,318,892 | 0.62% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|------------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 10/13/2017 | \$63.01 | \$63.00 | \$63.01 | 2,093,709 | -0.76% |
| 10/16/2017 | \$62.56 | \$62.55 | \$62.56 | 1,992,710 | -0.72% |
| 10/17/2017 | \$63.32 | \$63.31 | \$63.32 | 2,440,829 | 1.21% |
| 10/18/2017 | \$62.94 | \$62.93 | \$62.94 | 1,621,071 | -0.60% |
| 10/19/2017 | \$63.06 | \$63.07 | \$63.08 | 2,979,347 | 0.19% |
| 10/20/2017 | \$63.35 | \$63.36 | \$63.37 | 1,979,713 | 0.46% |
| 10/23/2017 | \$62.97 | \$62.97 | \$62.98 | 3,305,941 | -0.60% |
| 10/24/2017 | \$64.05 | \$64.05 | \$64.06 | 2,848,213 | 1.70% |
| 10/25/2017 | \$60.86 | \$60.86 | \$60.87 | 6,972,326 | -5.11% |
| 10/26/2017 | \$60.07 | \$60.06 | \$60.07 | 6,846,637 | -1.31% |
| 10/27/2017 | \$63.31 | \$63.30 | \$63.31 | 11,653,173 | 5.25% |
| 10/30/2017 | \$61.95 | \$61.95 | \$61.96 | 5,409,650 | -2.17% |
| 10/31/2017 | \$62.54 | \$62.53 | \$62.54 | 2,963,345 | 0.95% |
| 11/1/2017 | \$62.06 | \$62.06 | \$62.07 | 3,375,101 | -0.77% |
| 11/2/2017 | \$62.03 | \$62.03 | \$62.04 | 2,166,406 | -0.05% |
| 11/3/2017 | \$62.78 | \$62.77 | \$62.78 | 2,822,249 | 1.20% |
| 11/6/2017 | \$63.83 | \$63.87 | \$63.88 | 3,827,658 | 1.66% |
| 11/7/2017 | \$63.24 | \$63.23 | \$63.24 | 2,663,753 | -0.93% |
| 11/8/2017 | \$64.45 | \$64.43 | \$64.45 | 5,371,413 | 1.90% |
| 11/9/2017 | \$65.91 | \$65.90 | \$65.91 | 9,547,121 | 2.29% |
| 11/10/2017 | \$65.18 | \$65.09 | \$65.10 | 22,746,698 | -1.11% |
| 11/13/2017 | \$64.58 | \$64.54 | \$64.55 | 8,251,678 | -0.92% |
| 11/14/2017 | \$60.60 | \$60.60 | \$60.61 | 5,644,776 | -6.36% |
| 11/15/2017 | \$59.51 | \$59.51 | \$59.52 | 6,962,914 | -1.82% |
| 11/16/2017 | \$59.30 | \$59.29 | \$59.30 | 2,679,689 | -0.35% |
| 11/17/2017 | \$59.03 | \$59.01 | \$59.02 | 2,701,753 | -0.46% |
| 11/20/2017 | \$59.33 | \$59.33 | \$59.34 | 3,718,864 | 0.51% |
| 11/21/2017 | \$58.32 | \$58.32 | \$58.33 | 2,349,793 | -1.72% |
| 11/22/2017 | \$58.18 | \$58.17 | \$58.18 | 1,721,472 | -0.24% |
| 11/24/2017 | \$57.65 | \$57.66 | \$57.67 | 1,167,237 | -0.92% |
| 11/27/2017 | \$56.88 | \$56.82 | \$56.83 | 3,714,423 | -1.34% |
| 11/28/2017 | \$56.87 | \$56.86 | \$56.87 | 2,834,065 | -0.02% |
| 11/29/2017 | \$58.11 | \$58.10 | \$58.11 | 2,846,614 | 2.16% |
| 11/30/2017 | \$59.60 | \$59.58 | \$59.59 | 4,524,177 | 2.53% |
| 12/1/2017 | \$59.57 | \$59.55 | \$59.56 | 3,877,494 | -0.05% |
| 12/4/2017 | \$59.65 | \$59.65 | \$59.66 | 4,966,021 | 0.13% |
| 12/5/2017 | \$59.02 | \$59.03 | \$59.04 | 2,838,481 | -1.06% |
| 12/6/2017 | \$57.18 | \$57.19 | \$57.20 | 2,893,076 | -3.17% |
| 12/7/2017 | \$55.80 | \$55.79 | \$55.80 | 2,868,511 | -2.44% |
| 12/8/2017 | \$56.38 | \$56.39 | \$56.40 | 5,723,412 | 1.03% |
| 12/11/2017 | \$57.13 | \$57.12 | \$57.13 | 2,818,304 | 1.32% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|------------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 12/12/2017 | \$55.99 | \$55.98 | \$55.99 | 2,713,742 | -2.02% |
| 12/13/2017 | \$56.81 | \$56.81 | \$56.82 | 3,632,868 | 1.45% |
| 12/14/2017 | \$56.01 | \$56.00 | \$56.01 | 2,806,947 | -1.42% |
| 12/15/2017 | \$54.71 | \$54.70 | \$54.71 | 5,709,160 | -2.35% |
| 12/18/2017 | \$55.33 | \$55.32 | \$55.33 | 3,728,147 | 1.13% |
| 12/19/2017 | \$54.42 | \$54.41 | \$54.42 | 4,123,310 | -1.66% |
| 12/20/2017 | \$54.22 | \$54.22 | \$54.23 | 3,189,691 | -0.37% |
| 12/21/2017 | \$55.42 | \$55.42 | \$55.43 | 2,829,154 | 2.19% |
| 12/22/2017 | \$54.77 | \$54.77 | \$54.78 | 2,220,242 | -1.18% |
| 12/26/2017 | \$55.45 | \$55.44 | \$55.45 | 1,625,648 | 1.23% |
| 12/27/2017 | \$55.33 | \$55.32 | \$55.33 | 3,041,154 | -0.22% |
| 12/28/2017 | \$57.26 | \$57.26 | \$57.27 | 3,445,689 | 3.43% |
| 12/29/2017 | \$56.92 | \$56.92 | \$56.93 | 3,118,700 | -0.60% |
| 1/2/2018 | \$58.62 | \$58.65 | \$58.66 | 3,434,063 | 2.94% |
| 1/3/2018 | \$58.93 | \$58.88 | \$58.89 | 4,424,325 | 0.53% |
| 1/4/2018 | \$58.97 | \$58.96 | \$58.97 | 1,924,089 | 0.07% |
| 1/5/2018 | \$57.81 | \$57.80 | \$57.81 | 3,173,522 | -1.99% |
| 1/8/2018 | \$58.73 | \$58.72 | \$58.73 | 2,949,121 | 1.58% |
| 1/9/2018 | \$58.70 | \$58.68 | \$58.69 | 2,120,442 | -0.05% |
| 1/10/2018 | \$57.99 | \$57.98 | \$57.99 | 2,225,748 | -1.22% |
| 1/11/2018 | \$58.70 | \$58.70 | \$58.71 | 5,637,409 | 1.22% |
| 1/12/2018 | \$58.46 | \$58.44 | \$58.45 | 3,119,905 | -0.41% |
| 1/16/2018 | \$58.12 | \$58.10 | \$58.11 | 5,142,727 | -0.58% |
| 1/17/2018 | \$58.16 | \$58.13 | \$58.14 | 4,679,873 | 0.07% |
| 1/18/2018 | \$57.15 | \$57.14 | \$57.15 | 2,266,007 | -1.75% |
| 1/19/2018 | \$56.03 | \$56.03 | \$56.04 | 2,327,586 | -1.98% |
| 1/22/2018 | \$57.16 | \$57.15 | \$57.16 | 2,900,263 | 2.00% |
| 1/23/2018 | \$58.44 | \$58.44 | \$58.45 | 6,166,277 | 2.21% |
| 1/24/2018 | \$58.76 | \$58.76 | \$58.77 | 3,013,853 | 0.55% |
| 1/25/2018 | \$58.48 | \$58.48 | \$58.49 | 2,155,645 | -0.48% |
| 1/26/2018 | \$58.74 | \$58.72 | \$58.73 | 2,926,930 | 0.44% |
| 1/29/2018 | \$56.85 | \$56.83 | \$56.84 | 2,070,830 | -3.27% |
| 1/30/2018 | \$54.65 | \$54.65 | \$54.66 | 4,127,469 | -3.95% |
| 1/31/2018 | \$54.29 | \$54.28 | \$54.29 | 4,198,930 | -0.66% |
| 2/1/2018 | \$53.32 | \$53.31 | \$53.32 | 5,508,000 | -1.80% |
| 2/2/2018 | \$51.91 | \$51.90 | \$51.91 | 4,048,034 | -2.68% |
| 2/5/2018 | \$49.27 | \$49.32 | \$49.33 | 5,611,332 | -5.22% |
| 2/6/2018 | \$49.64 | \$49.62 | \$49.63 | 4,332,400 | 0.75% |
| 2/7/2018 | \$47.65 | \$47.64 | \$47.65 | 4,853,511 | -4.09% |
| 2/8/2018 | \$46.25 | \$46.25 | \$46.26 | 5,506,318 | -2.98% |
| 2/9/2018 | \$45.73 | \$45.72 | \$45.73 | 4,453,575 | -1.13% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 2/12/2018 | \$47.77 | \$47.76 | \$47.77 | 4,466,768 | 4.36% |
| 2/13/2018 | \$47.37 | \$47.39 | \$47.40 | 4,615,193 | -0.78% |
| 2/14/2018 | \$48.51 | \$48.51 | \$48.52 | 4,854,837 | 2.38% |
| 2/15/2018 | \$53.34 | \$53.34 | \$53.36 | 11,157,433 | 9.49% |
| 2/16/2018 | \$52.55 | \$52.55 | \$52.56 | 6,195,597 | -1.49% |
| 2/20/2018 | \$51.40 | \$51.43 | \$51.44 | 6,081,677 | -2.21% |
| 2/21/2018 | \$49.81 | \$49.81 | \$49.82 | 7,223,890 | -3.14% |
| 2/22/2018 | \$50.82 | \$50.82 | \$50.83 | 6,856,727 | 2.01% |
| 2/23/2018 | \$52.08 | \$52.08 | \$52.09 | 3,887,685 | 2.45% |
| 2/26/2018 | \$52.50 | \$52.50 | \$52.51 | 3,786,298 | 0.80% |
| 2/27/2018 | \$51.37 | \$51.35 | \$51.37 | 4,602,103 | -2.18% |
| 2/28/2018 | \$50.31 | \$50.32 | \$50.33 | 3,291,987 | -2.09% |
| 3/1/2018 | \$50.13 | \$50.13 | \$50.14 | 3,751,245 | -0.36% |
| 3/2/2018 | \$50.32 | \$50.31 | \$50.32 | 4,071,183 | 0.38% |
| 3/5/2018 | \$51.89 | \$51.88 | \$51.89 | 3,534,025 | 3.07% |
| 3/6/2018 | \$51.82 | \$51.81 | \$51.82 | 3,772,530 | -0.13% |
| 3/7/2018 | \$51.35 | \$51.34 | \$51.35 | 2,166,267 | -0.91% |
| 3/8/2018 | \$51.07 | \$51.07 | \$51.08 | 1,859,827 | -0.55% |
| 3/9/2018 | \$52.44 | \$52.44 | \$52.45 | 2,253,434 | 2.65% |
| 3/12/2018 | \$52.20 | \$52.20 | \$52.21 | 2,061,095 | -0.46% |
| 3/13/2018 | \$52.66 | \$52.65 | \$52.66 | 2,315,795 | 0.88% |
| 3/14/2018 | \$52.45 | \$52.45 | \$52.46 | 2,829,500 | -0.40% |
| 3/15/2018 | \$49.73 | \$49.72 | \$49.73 | 7,596,805 | -5.33% |
| 3/16/2018 | \$50.45 | \$50.46 | \$50.47 | 3,789,731 | 1.44% |
| 3/19/2018 | \$48.64 | \$48.63 | \$48.64 | 2,100,651 | -3.65% |
| 3/20/2018 | \$48.51 | \$48.50 | \$48.51 | 1,896,826 | -0.27% |
| 3/21/2018 | \$49.54 | \$49.53 | \$49.54 | 1,760,104 | 2.10% |
| 3/22/2018 | \$48.77 | \$48.76 | \$48.77 | 1,876,573 | -1.57% |
| 3/23/2018 | \$48.22 | \$48.22 | \$48.23 | 2,241,058 | -1.13% |
| 3/26/2018 | \$48.88 | \$48.87 | \$48.88 | 1,766,820 | 1.36% |
| 3/27/2018 | \$47.45 | \$47.45 | \$47.46 | 3,085,308 | -2.97% |
| 3/28/2018 | \$46.59 | \$46.59 | \$46.61 | 2,592,670 | -1.83% |
| 3/29/2018 | \$47.51 | \$47.51 | \$47.52 | 3,145,934 | 1.96% |
| 4/2/2018 | \$46.04 | \$46.05 | \$46.06 | 2,136,637 | -3.14% |
| 4/3/2018 | \$47.14 | \$47.12 | \$47.13 | 2,043,820 | 2.36% |
| 4/4/2018 | \$46.82 | \$46.82 | \$46.83 | 2,020,424 | -0.68% |
| 4/5/2018 | \$48.74 | \$48.75 | \$48.76 | 2,635,040 | 4.02% |
| 4/6/2018 | \$46.90 | \$46.89 | \$46.90 | 2,832,783 | -3.85% |
| 4/9/2018 | \$46.65 | \$46.65 | \$46.66 | 1,667,667 | -0.53% |
| 4/10/2018 | \$48.58 | \$48.57 | \$48.58 | 2,252,169 | 4.05% |
| 4/11/2018 | \$48.71 | \$48.69 | \$48.70 | 1,655,747 | 0.27% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 4/12/2018 | \$48.33 | \$48.34 | \$48.35 | 1,663,044 | -0.78% |
| 4/13/2018 | \$48.85 | \$48.84 | \$48.85 | 1,905,831 | 1.07% |
| 4/16/2018 | \$49.01 | \$49.01 | \$49.02 | 1,625,187 | 0.33% |
| 4/17/2018 | \$49.38 | \$49.37 | \$49.38 | 1,297,277 | 0.75% |
| 4/18/2018 | \$49.14 | \$49.14 | \$49.15 | 1,780,466 | -0.49% |
| 4/19/2018 | \$48.22 | \$48.21 | \$48.22 | 1,661,145 | -1.89% |
| 4/20/2018 | \$47.36 | \$47.35 | \$47.36 | 3,412,844 | -1.80% |
| 4/23/2018 | \$47.94 | \$47.92 | \$47.93 | 2,057,623 | 1.22% |
| 4/24/2018 | \$46.65 | \$46.65 | \$46.66 | 2,544,361 | -2.73% |
| 4/25/2018 | \$46.95 | \$46.94 | \$46.95 | 2,389,293 | 0.64% |
| 4/26/2018 | \$50.94 | \$50.91 | \$50.92 | 10,516,170 | 8.16% |
| 4/27/2018 | \$49.96 | \$49.96 | \$49.97 | 3,927,253 | -1.94% |
| 4/30/2018 | \$50.19 | \$50.19 | \$50.20 | 3,268,456 | 0.46% |
| 5/1/2018 | \$50.22 | \$50.19 | \$50.20 | 3,731,739 | 0.06% |
| 5/2/2018 | \$49.79 | \$49.79 | \$49.80 | 3,131,799 | -0.86% |
| 5/3/2018 | \$47.09 | \$47.08 | \$47.09 | 3,637,544 | -5.58% |
| 5/4/2018 | \$48.63 | \$48.62 | \$48.63 | 2,110,623 | 3.22% |
| 5/7/2018 | \$49.40 | \$49.38 | \$49.39 | 3,177,693 | 1.57% |
| 5/8/2018 | \$50.54 | \$50.53 | \$50.54 | 2,936,007 | 2.28% |
| 5/9/2018 | \$51.24 | \$51.23 | \$51.24 | 4,170,394 | 1.38% |
| 5/10/2018 | \$51.65 | \$51.65 | \$51.66 | 2,526,679 | 0.86% |
| 5/11/2018 | \$50.80 | \$50.79 | \$50.80 | 2,292,904 | -1.66% |
| 5/14/2018 | \$51.69 | \$51.69 | \$51.70 | 2,300,440 | 1.74% |
| 5/15/2018 | \$52.25 | \$52.23 | \$52.25 | 2,976,391 | 1.08% |
| 5/16/2018 | \$53.55 | \$53.54 | \$53.55 | 3,867,512 | 2.46% |
| 5/17/2018 | \$53.94 | \$53.92 | \$53.93 | 2,431,396 | 0.73% |
| 5/18/2018 | \$52.64 | \$52.65 | \$52.66 | 2,742,509 | -2.44% |
| 5/21/2018 | \$53.68 | \$53.67 | \$53.68 | 2,285,328 | 1.96% |
| 5/22/2018 | \$52.55 | \$52.55 | \$52.56 | 3,048,113 | -2.13% |
| 5/23/2018 | \$52.19 | \$52.19 | \$52.20 | 2,427,336 | -0.69% |
| 5/24/2018 | \$50.83 | \$50.84 | \$50.85 | 2,236,139 | -2.64% |
| 5/25/2018 | \$50.23 | \$50.23 | \$50.24 | 2,804,859 | -1.19% |
| 5/29/2018 | \$49.47 | \$49.48 | \$49.49 | 1,962,572 | -1.52% |
| 5/30/2018 | \$51.23 | \$51.22 | \$51.23 | 1,999,369 | 3.50% |
| 5/31/2018 | \$51.54 | \$51.52 | \$51.53 | 3,128,832 | 0.60% |
| 6/1/2018 | \$51.91 | \$51.89 | \$51.90 | 2,696,034 | 0.72% |
| 6/4/2018 | \$50.53 | \$50.53 | \$50.54 | 1,977,288 | -2.69% |
| 6/5/2018 | \$50.73 | \$50.75 | \$50.77 | 2,139,245 | 0.40% |
| 6/6/2018 | \$51.69 | \$51.69 | \$51.71 | 2,069,893 | 1.87% |
| 6/7/2018 | \$53.15 | \$53.15 | \$53.16 | 2,303,324 | 2.79% |
| 6/8/2018 | \$53.12 | \$53.10 | \$53.12 | 1,876,343 | -0.06% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 6/11/2018 | \$54.22 | \$54.20 | \$54.21 | 1,813,491 | 2.05% |
| 6/12/2018 | \$55.50 | \$55.49 | \$55.50 | 3,485,177 | 2.33% |
| 6/13/2018 | \$56.79 | \$56.81 | \$56.82 | 3,957,654 | 2.30% |
| 6/14/2018 | \$56.16 | \$56.16 | \$56.17 | 3,346,739 | -1.12% |
| 6/15/2018 | \$55.46 | \$55.46 | \$55.47 | 5,333,345 | -1.25% |
| 6/18/2018 | \$55.90 | \$55.89 | \$55.90 | 3,231,620 | 0.79% |
| 6/19/2018 | \$56.45 | \$56.44 | \$56.45 | 2,678,406 | 0.98% |
| 6/20/2018 | \$56.78 | \$56.75 | \$56.76 | 2,888,026 | 0.58% |
| 6/21/2018 | \$55.95 | \$55.93 | \$55.94 | 2,090,677 | -1.47% |
| 6/22/2018 | \$53.68 | \$53.68 | \$53.69 | 6,729,106 | -4.14% |
| 6/25/2018 | \$53.81 | \$53.81 | \$53.82 | 3,964,053 | 0.24% |
| 6/26/2018 | \$55.05 | \$55.04 | \$55.06 | 2,773,798 | 2.28% |
| 6/27/2018 | \$54.97 | \$54.96 | \$54.97 | 2,615,150 | -0.15% |
| 6/28/2018 | \$56.24 | \$56.22 | \$56.23 | 3,389,320 | 2.28% |
| 6/29/2018 | \$55.18 | \$55.19 | \$55.20 | 2,635,107 | -1.90% |
| 7/2/2018 | \$54.45 | \$54.43 | \$54.45 | 1,708,139 | -1.33% |
| 7/3/2018 | \$54.50 | \$54.45 | \$54.46 | 1,094,198 | 0.09% |
| 7/5/2018 | \$54.97 | \$54.98 | \$54.99 | 1,967,640 | 0.86% |
| 7/6/2018 | \$55.92 | \$55.92 | \$55.94 | 1,285,011 | 1.71% |
| 7/9/2018 | \$56.89 | \$56.88 | \$56.89 | 2,091,340 | 1.72% |
| 7/10/2018 | \$56.40 | \$56.40 | \$56.41 | 1,997,658 | -0.87% |
| 7/11/2018 | \$55.81 | \$55.81 | \$55.82 | 2,417,436 | -1.05% |
| 7/12/2018 | \$55.23 | \$55.22 | \$55.23 | 2,081,377 | -1.04% |
| 7/13/2018 | \$55.52 | \$55.51 | \$55.52 | 2,369,022 | 0.52% |
| 7/16/2018 | \$54.87 | \$54.85 | \$54.86 | 2,644,538 | -1.18% |
| 7/17/2018 | \$54.94 | \$54.94 | \$54.95 | 1,375,561 | 0.13% |
| 7/18/2018 | \$54.87 | \$54.88 | \$54.89 | 1,686,574 | -0.13% |
| 7/19/2018 | \$55.69 | \$55.69 | \$55.70 | 2,573,149 | 1.48% |
| 7/20/2018 | \$55.68 | \$55.68 | \$55.69 | 3,249,952 | -0.02% |
| 7/23/2018 | \$54.91 | \$54.91 | \$54.92 | 1,914,478 | -1.39% |
| 7/24/2018 | \$55.00 | \$54.99 | \$55.00 | 1,934,768 | 0.16% |
| 7/25/2018 | \$55.43 | \$55.45 | \$55.46 | 2,597,125 | 0.78% |
| 7/26/2018 | \$54.34 | \$54.34 | \$54.35 | 5,346,726 | -1.99% |
| 7/27/2018 | \$49.85 | \$49.86 | \$49.87 | 6,554,367 | -8.62% |
| 7/30/2018 | \$49.69 | \$49.67 | \$49.68 | 4,331,793 | -0.32% |
| 7/31/2018 | \$49.68 | \$49.67 | \$49.68 | 3,113,110 | -0.02% |
| 8/1/2018 | \$49.20 | \$49.20 | \$49.21 | 2,623,922 | -0.97% |
| 8/2/2018 | \$49.49 | \$49.49 | \$49.50 | 2,393,956 | 0.59% |
| 8/3/2018 | \$50.36 | \$50.36 | \$50.37 | 4,040,626 | 1.74% |
| 8/6/2018 | \$50.50 | \$50.49 | \$50.50 | 2,178,101 | 0.28% |
| 8/7/2018 | \$51.05 | \$51.04 | \$51.05 | 2,216,464 | 1.08% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 8/8/2018 | \$50.56 | \$50.56 | \$50.57 | 3,483,354 | -0.96% |
| 8/9/2018 | \$49.95 | \$49.93 | \$49.94 | 3,899,477 | -1.15% |
| 8/10/2018 | \$49.81 | \$49.81 | \$49.82 | 5,260,480 | -0.28% |
| 8/13/2018 | \$49.35 | \$49.34 | \$49.35 | 3,520,726 | -0.93% |
| 8/14/2018 | \$50.36 | \$50.34 | \$50.35 | 3,515,374 | 2.03% |
| 8/15/2018 | \$49.24 | \$49.23 | \$49.24 | 2,965,475 | -2.25% |
| 8/16/2018 | \$49.85 | \$49.85 | \$49.86 | 2,596,277 | 1.23% |
| 8/17/2018 | \$49.53 | \$49.52 | \$49.53 | 3,406,736 | -0.64% |
| 8/20/2018 | \$50.00 | \$50.01 | \$50.02 | 4,791,430 | 0.94% |
| 8/21/2018 | \$51.22 | \$51.21 | \$51.22 | 3,834,396 | 2.41% |
| 8/22/2018 | \$51.67 | \$51.66 | \$51.67 | 1,977,093 | 0.87% |
| 8/23/2018 | \$51.47 | \$51.47 | \$51.48 | 2,142,188 | -0.39% |
| 8/24/2018 | \$51.15 | \$51.15 | \$51.16 | 1,237,966 | -0.62% |
| 8/27/2018 | \$50.00 | \$49.99 | \$50.00 | 3,268,755 | -2.27% |
| 8/28/2018 | \$50.03 | \$50.02 | \$50.03 | 2,831,911 | 0.06% |
| 8/29/2018 | \$50.69 | \$50.68 | \$50.69 | 1,990,011 | 1.31% |
| 8/30/2018 | \$51.30 | \$51.30 | \$51.31 | 2,275,008 | 1.20% |
| 8/31/2018 | \$51.02 | \$51.01 | \$51.02 | 1,777,686 | -0.55% |
| 9/4/2018 | \$49.30 | \$49.29 | \$49.30 | 2,408,727 | -3.43% |
| 9/5/2018 | \$48.77 | \$48.76 | \$48.77 | 2,509,432 | -1.08% |
| 9/6/2018 | \$46.91 | \$46.91 | \$46.92 | 4,048,506 | -3.89% |
| 9/7/2018 | \$46.56 | \$46.56 | \$46.57 | 2,307,593 | -0.75% |
| 9/10/2018 | \$45.97 | \$45.98 | \$45.99 | 2,551,902 | -1.28% |
| 9/11/2018 | \$46.86 | \$46.84 | \$46.85 | 3,396,852 | 1.92% |
| 9/12/2018 | \$47.17 | \$47.17 | \$47.18 | 2,041,309 | 0.66% |
| 9/13/2018 | \$47.79 | \$47.79 | \$47.80 | 2,460,981 | 1.31% |
| 9/14/2018 | \$47.55 | \$47.55 | \$47.56 | 1,431,809 | -0.50% |
| 9/17/2018 | \$47.04 | \$47.04 | \$47.05 | 2,047,676 | -1.08% |
| 9/18/2018 | \$46.53 | \$46.53 | \$46.54 | 3,288,927 | -1.09% |
| 9/19/2018 | \$47.58 | \$47.58 | \$47.59 | 2,307,020 | 2.23% |
| 9/20/2018 | \$48.49 | \$48.49 | \$48.50 | 1,982,707 | 1.89% |
| 9/21/2018 | \$48.24 | \$48.23 | \$48.24 | 5,206,711 | -0.52% |
| 9/24/2018 | \$46.78 | \$46.77 | \$46.78 | 2,700,596 | -3.07% |
| 9/25/2018 | \$46.93 | \$46.93 | \$46.94 | 2,599,546 | 0.32% |
| 9/26/2018 | \$44.44 | \$44.43 | \$44.44 | 3,459,811 | -5.45% |
| 9/27/2018 | \$44.71 | \$44.71 | \$44.72 | 2,949,947 | 0.61% |
| 9/28/2018 | \$44.23 | \$44.23 | \$44.24 | 3,306,052 | -1.08% |
| 10/1/2018 | \$44.05 | \$44.04 | \$44.05 | 1,994,818 | -0.41% |
| 10/2/2018 | \$44.18 | \$44.17 | \$44.18 | 3,649,657 | 0.29% |
| 10/3/2018 | \$44.19 | \$44.18 | \$44.19 | 4,853,836 | 0.02% |
| 10/4/2018 | \$44.23 | \$44.22 | \$44.23 | 2,981,169 | 0.09% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|------------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 10/5/2018 | \$44.84 | \$44.84 | \$44.85 | 1,949,274 | 1.37% |
| 10/8/2018 | \$45.70 | \$45.69 | \$45.70 | 2,197,875 | 1.90% |
| 10/9/2018 | \$46.39 | \$46.38 | \$46.39 | 2,476,425 | 1.50% |
| 10/10/2018 | \$45.65 | \$45.65 | \$45.66 | 2,699,031 | -1.61% |
| 10/11/2018 | \$45.35 | \$45.38 | \$45.39 | 4,185,208 | -0.66% |
| 10/12/2018 | \$45.40 | \$45.40 | \$45.41 | 2,008,399 | 0.11% |
| 10/15/2018 | \$46.95 | \$46.93 | \$46.94 | 2,473,338 | 3.36% |
| 10/16/2018 | \$47.56 | \$47.55 | \$47.56 | 1,787,670 | 1.29% |
| 10/17/2018 | \$47.36 | \$47.35 | \$47.36 | 2,154,873 | -0.42% |
| 10/18/2018 | \$46.68 | \$46.68 | \$46.70 | 1,809,771 | -1.45% |
| 10/19/2018 | \$46.38 | \$46.38 | \$46.40 | 1,911,927 | -0.64% |
| 10/22/2018 | \$44.43 | \$44.43 | \$44.44 | 2,882,136 | -4.30% |
| 10/23/2018 | \$42.46 | \$42.46 | \$42.47 | 3,367,680 | -4.54% |
| 10/24/2018 | \$40.46 | \$40.45 | \$40.46 | 4,282,581 | -4.82% |
| 10/25/2018 | \$35.34 | \$35.33 | \$35.35 | 13,621,767 | -13.53% |
| 10/26/2018 | \$32.55 | \$32.54 | \$32.55 | 11,732,742 | -8.22% |
| 10/29/2018 | \$31.00 | \$30.98 | \$30.99 | 10,305,920 | -4.88% |
| 10/30/2018 | \$32.87 | \$32.86 | \$32.87 | 7,205,766 | 5.86% |
| 10/31/2018 | \$33.97 | \$33.98 | \$33.99 | 7,448,181 | 3.29% |
| 11/1/2018 | \$34.88 | \$34.88 | \$34.89 | 3,571,524 | 2.64% |
| 11/2/2018 | \$32.63 | \$32.60 | \$32.61 | 4,207,574 | -6.67% |
| 11/5/2018 | \$35.35 | \$35.34 | \$35.35 | 4,344,177 | 8.01% |
| 11/6/2018 | \$35.02 | \$35.01 | \$35.02 | 3,252,135 | -0.94% |
| 11/7/2018 | \$34.17 | \$34.17 | \$34.18 | 5,632,862 | -2.46% |
| 11/8/2018 | \$34.80 | \$34.85 | \$34.86 | 8,448,326 | 1.83% |
| 11/9/2018 | \$35.90 | \$35.86 | \$35.87 | 11,832,529 | 3.11% |
| 11/12/2018 | \$34.64 | \$34.64 | \$34.65 | 69,020,884 | -3.57% |
| 11/13/2018 | \$18.56 | \$18.57 | \$18.58 | 35,458,798 | 1.81% |
| 11/14/2018 | \$17.48 | \$17.47 | \$17.48 | 20,937,166 | -6.00% |
| 11/15/2018 | \$17.20 | \$17.17 | \$17.18 | 12,247,549 | -1.61% |
| 11/16/2018 | \$16.63 | \$16.62 | \$16.63 | 11,981,749 | -3.37% |
| 11/19/2018 | \$17.10 | \$17.09 | \$17.10 | 9,691,021 | 2.79% |
| 11/20/2018 | \$16.71 | \$16.71 | \$16.72 | 9,112,804 | -2.13% |
| 11/21/2018 | \$17.79 | \$17.79 | \$17.80 | 7,334,273 | 6.26% |
| 11/23/2018 | \$18.11 | \$18.10 | \$18.11 | 3,538,800 | 1.78% |
| 11/26/2018 | \$18.68 | \$18.68 | \$18.69 | 7,676,980 | 3.10% |
| 11/27/2018 | \$18.67 | \$18.66 | \$18.67 | 6,644,138 | -0.05% |
| 11/28/2018 | \$19.07 | \$19.07 | \$19.08 | 5,772,076 | 2.12% |
| 11/29/2018 | \$18.80 | \$18.79 | \$18.79 | 6,855,147 | -1.43% |
| 11/30/2018 | \$18.71 | \$18.71 | \$18.72 | 4,814,306 | -0.48% |
| 12/3/2018 | \$18.91 | \$18.89 | \$18.91 | 7,427,813 | 1.06% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|------------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 12/4/2018 | \$18.25 | \$18.25 | \$18.26 | 4,767,396 | -3.55% |
| 12/6/2018 | \$17.99 | \$17.99 | \$18.00 | 5,852,104 | -1.43% |
| 12/7/2018 | \$18.41 | \$18.41 | \$18.42 | 8,203,584 | 2.31% |
| 12/10/2018 | \$19.63 | \$19.62 | \$19.63 | 12,089,241 | 6.42% |
| 12/11/2018 | \$20.28 | \$20.28 | \$20.29 | 12,622,454 | 3.26% |
| 12/12/2018 | \$19.99 | \$19.98 | \$19.99 | 9,079,135 | -1.44% |
| 12/13/2018 | \$20.19 | \$20.18 | \$20.19 | 7,191,818 | 1.00% |
| 12/14/2018 | \$19.40 | \$19.39 | \$19.40 | 7,052,951 | -3.99% |
| 12/17/2018 | \$18.89 | \$18.89 | \$18.90 | 6,387,161 | -2.66% |
| 12/18/2018 | \$18.87 | \$18.85 | \$18.86 | 5,869,801 | -0.11% |
| 12/19/2018 | \$18.89 | \$18.88 | \$18.89 | 8,051,065 | 0.11% |
| 12/20/2018 | \$18.55 | \$18.54 | \$18.55 | 9,243,528 | -1.82% |
| 12/21/2018 | \$18.67 | \$18.66 | \$18.67 | 10,150,186 | 0.64% |
| 12/24/2018 | \$17.59 | \$17.58 | \$17.59 | 2,774,503 | -5.96% |
| 12/26/2018 | \$19.37 | \$19.37 | \$19.38 | 5,662,236 | 9.64% |
| 12/27/2018 | \$19.83 | \$19.82 | \$19.83 | 5,501,233 | 2.35% |
| 12/28/2018 | \$19.19 | \$19.17 | \$19.18 | 3,500,058 | -3.28% |
| 12/31/2018 | \$18.89 | \$18.88 | \$18.89 | 4,776,477 | -1.58% |
| 1/2/2019 | \$19.90 | \$19.90 | \$19.91 | 7,754,231 | 5.21% |
| 1/3/2019 | \$19.32 | \$19.30 | \$19.31 | 4,969,975 | -2.96% |
| 1/4/2019 | \$19.52 | \$19.49 | \$19.50 | 11,672,127 | 1.03% |
| 1/7/2019 | \$19.74 | \$19.74 | \$19.75 | 8,225,772 | 1.12% |
| 1/8/2019 | \$20.35 | \$20.34 | \$20.35 | 6,983,770 | 3.04% |
| 1/9/2019 | \$19.96 | \$19.97 | \$19.98 | 5,085,601 | -1.94% |
| 1/10/2019 | \$19.79 | \$19.79 | \$19.80 | 4,247,048 | -0.86% |
| 1/11/2019 | \$20.37 | \$20.37 | \$20.38 | 3,791,103 | 2.89% |
| 1/14/2019 | \$20.79 | \$20.79 | \$20.80 | 4,568,761 | 2.04% |
| 1/15/2019 | \$20.95 | \$20.94 | \$20.95 | 3,755,210 | 0.77% |
| 1/16/2019 | \$20.50 | \$20.50 | \$20.51 | 3,390,939 | -2.17% |
| 1/17/2019 | \$20.96 | \$20.95 | \$20.96 | 3,904,559 | 2.22% |
| 1/18/2019 | \$21.18 | \$21.18 | \$21.19 | 4,792,898 | 1.04% |
| 1/22/2019 | \$19.99 | \$19.98 | \$19.99 | 4,902,385 | -5.78% |
| 1/23/2019 | \$19.05 | \$19.00 | \$19.01 | 5,623,544 | -4.82% |
| 1/24/2019 | \$18.89 | \$18.88 | \$18.89 | 7,062,727 | -0.84% |
| 1/25/2019 | \$19.97 | \$19.97 | \$19.98 | 4,363,199 | 5.56% |
| 1/28/2019 | \$19.35 | \$19.35 | \$19.37 | 3,664,159 | -3.15% |
| 1/29/2019 | \$19.77 | \$19.77 | \$19.78 | 3,924,611 | 2.15% |
| 1/30/2019 | \$19.85 | \$19.85 | \$19.86 | 3,484,822 | 0.40% |
| 1/31/2019 | \$19.47 | \$19.44 | \$19.45 | 5,711,819 | -1.93% |
| 2/1/2019 | \$19.66 | \$19.65 | \$19.66 | 3,335,986 | 0.97% |
| 2/4/2019 | \$19.78 | \$19.78 | \$19.79 | 2,414,135 | 0.61% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 2/5/2019 | \$19.09 | \$19.09 | \$19.10 | 4,778,606 | -3.55% |
| 2/6/2019 | \$18.68 | \$18.68 | \$18.69 | 3,186,720 | -2.17% |
| 2/7/2019 | \$17.84 | \$17.83 | \$17.84 | 4,224,932 | -4.60% |
| 2/8/2019 | \$17.79 | \$17.79 | \$17.80 | 3,992,885 | -0.28% |
| 2/11/2019 | \$18.38 | \$18.37 | \$18.38 | 2,715,537 | 3.26% |
| 2/12/2019 | \$18.88 | \$18.88 | \$18.89 | 3,391,949 | 2.68% |
| 2/13/2019 | \$19.21 | \$19.20 | \$19.21 | 4,407,526 | 1.73% |
| 2/14/2019 | \$18.20 | \$18.23 | \$18.24 | 6,704,327 | -5.24% |
| 2/15/2019 | \$18.93 | \$18.93 | \$18.94 | 5,858,560 | 3.93% |
| 2/19/2019 | \$18.97 | \$18.96 | \$18.97 | 5,633,792 | 0.21% |
| 2/20/2019 | \$19.35 | \$19.35 | \$19.36 | 5,114,591 | 1.98% |
| 2/21/2019 | \$19.03 | \$19.02 | \$19.03 | 3,089,135 | -1.67% |
| 2/22/2019 | \$19.31 | \$19.31 | \$19.32 | 5,516,284 | 1.46% |
| 2/25/2019 | \$19.81 | \$19.80 | \$19.81 | 4,334,892 | 2.56% |
| 2/26/2019 | \$19.04 | \$19.04 | \$19.05 | 3,956,066 | -3.96% |
| 2/27/2019 | \$18.31 | \$18.29 | \$18.30 | 5,474,233 | -3.91% |
| 2/28/2019 | \$18.12 | \$18.10 | \$18.11 | 5,194,326 | -1.04% |
| 3/1/2019 | \$19.49 | \$19.48 | \$19.49 | 4,737,917 | 7.29% |
| 3/4/2019 | \$19.83 | \$19.82 | \$19.83 | 3,775,322 | 1.73% |
| 3/5/2019 | \$19.40 | \$19.40 | \$19.41 | 3,682,308 | -2.19% |
| 3/6/2019 | \$18.85 | \$18.85 | \$18.86 | 3,229,169 | -2.88% |
| 3/7/2019 | \$18.87 | \$18.88 | \$18.89 | 4,691,341 | 0.11% |
| 3/8/2019 | \$18.36 | \$18.35 | \$18.36 | 4,255,048 | -2.74% |
| 3/11/2019 | \$18.70 | \$18.69 | \$18.70 | 3,855,005 | 1.83% |
| 3/12/2019 | \$19.65 | \$19.65 | \$19.66 | 4,166,073 | 4.96% |
| 3/13/2019 | \$19.64 | \$19.64 | \$19.65 | 4,527,626 | -0.05% |
| 3/14/2019 | \$19.86 | \$19.85 | \$19.86 | 3,756,360 | 1.11% |
| 3/15/2019 | \$19.41 | \$19.41 | \$19.42 | 6,557,264 | -2.29% |
| 3/18/2019 | \$20.04 | \$20.04 | \$20.05 | 5,406,425 | 3.19% |
| 3/19/2019 | \$20.05 | \$20.05 | \$20.06 | 3,252,112 | 0.05% |
| 3/20/2019 | \$20.83 | \$20.82 | \$20.83 | 4,198,762 | 3.82% |
| 3/21/2019 | \$20.26 | \$20.27 | \$20.28 | 5,781,954 | -2.77% |
| 3/22/2019 | \$19.51 | \$19.49 | \$19.50 | 4,146,200 | -3.77% |
| 3/25/2019 | \$20.00 | \$19.99 | \$20.00 | 3,909,578 | 2.48% |
| 3/26/2019 | \$20.13 | \$20.12 | \$20.13 | 4,198,883 | 0.65% |
| 3/27/2019 | \$20.33 | \$20.33 | \$20.34 | 3,285,347 | 0.99% |
| 3/28/2019 | \$20.65 | \$20.65 | \$20.66 | 3,491,427 | 1.56% |
| 3/29/2019 | \$20.74 | \$20.74 | \$20.75 | 3,980,779 | 0.43% |
| 4/1/2019 | \$20.55 | \$20.55 | \$20.56 | 4,084,670 | -0.92% |
| 4/2/2019 | \$20.62 | \$20.61 | \$20.62 | 3,963,851 | 0.34% |
| 4/3/2019 | \$20.10 | \$20.07 | \$20.08 | 3,224,014 | -2.55% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 4/4/2019 | \$20.89 | \$20.88 | \$20.89 | 4,265,280 | 3.86% |
| 4/5/2019 | \$21.61 | \$21.60 | \$21.61 | 2,570,117 | 3.39% |
| 4/8/2019 | \$21.51 | \$21.50 | \$21.51 | 3,530,489 | -0.46% |
| 4/9/2019 | \$20.93 | \$20.92 | \$20.93 | 4,445,757 | -2.73% |
| 4/10/2019 | \$21.06 | \$21.06 | \$21.07 | 2,428,840 | 0.62% |
| 4/11/2019 | \$20.96 | \$20.94 | \$20.95 | 2,309,188 | -0.48% |
| 4/12/2019 | \$21.33 | \$21.32 | \$21.33 | 3,125,275 | 1.75% |
| 4/15/2019 | \$21.58 | \$21.58 | \$21.59 | 2,089,503 | 1.17% |
| 4/16/2019 | \$21.73 | \$21.72 | \$21.73 | 2,779,088 | 0.69% |
| 4/17/2019 | \$21.26 | \$21.25 | \$21.26 | 3,526,682 | -2.19% |
| 4/18/2019 | \$20.44 | \$20.42 | \$20.43 | 3,926,636 | -3.93% |
| 4/22/2019 | \$21.05 | \$21.04 | \$21.05 | 3,880,413 | 2.94% |
| 4/23/2019 | \$21.01 | \$21.00 | \$21.01 | 3,534,730 | -0.19% |
| 4/24/2019 | \$20.75 | \$20.75 | \$20.76 | 4,583,710 | -1.25% |
| 4/25/2019 | \$20.16 | \$20.16 | \$20.17 | 5,075,874 | -2.88% |
| 4/26/2019 | \$20.99 | \$20.98 | \$20.99 | 6,193,809 | 4.03% |
| 4/29/2019 | \$21.07 | \$21.07 | \$21.08 | 3,900,407 | 0.38% |
| 4/30/2019 | \$20.45 | \$20.44 | \$20.45 | 3,836,058 | -2.99% |
| 5/1/2019 | \$20.08 | \$20.07 | \$20.08 | 3,082,824 | -1.83% |
| 5/2/2019 | \$19.72 | \$19.72 | \$19.73 | 3,928,448 | -1.81% |
| 5/3/2019 | \$20.38 | \$20.37 | \$20.38 | 2,754,659 | 3.29% |
| 5/6/2019 | \$20.36 | \$20.37 | \$20.38 | 2,517,187 | -0.10% |
| 5/7/2019 | \$20.69 | \$20.68 | \$20.69 | 2,755,116 | 1.61% |
| 5/8/2019 | \$20.44 | \$20.44 | \$20.45 | 2,525,562 | -1.22% |
| 5/9/2019 | \$20.45 | \$20.44 | \$20.45 | 1,720,915 | 0.05% |
| 5/10/2019 | \$21.05 | \$21.06 | \$21.07 | 3,987,511 | 2.89% |
| 5/13/2019 | \$20.86 | \$20.86 | \$20.87 | 5,816,904 | -0.91% |
| 5/14/2019 | \$21.06 | \$21.05 | \$21.06 | 3,940,320 | 1.10% |
| 5/15/2019 | \$21.54 | \$21.55 | \$21.56 | 2,315,121 | 2.25% |
| 5/16/2019 | \$21.02 | \$21.02 | \$21.03 | 5,179,973 | -2.44% |
| 5/17/2019 | \$20.81 | \$20.80 | \$20.81 | 2,961,993 | -1.00% |
| 5/20/2019 | \$20.89 | \$20.89 | \$20.90 | 2,549,998 | 0.38% |
| 5/21/2019 | \$21.45 | \$21.44 | \$21.45 | 2,823,739 | 2.65% |
| 5/22/2019 | \$19.95 | \$19.95 | \$19.96 | 3,336,187 | -7.25% |
| 5/23/2019 | \$19.57 | \$19.57 | \$19.58 | 5,705,378 | -1.92% |
| 5/24/2019 | \$19.43 | \$19.42 | \$19.43 | 3,790,477 | -0.72% |
| 5/28/2019 | \$18.88 | \$18.87 | \$18.88 | 2,457,448 | -2.87% |
| 5/29/2019 | \$18.67 | \$18.66 | \$18.67 | 3,541,344 | -1.12% |
| 5/30/2019 | \$18.26 | \$18.26 | \$18.27 | 2,817,113 | -2.22% |
| 5/31/2019 | \$18.30 | \$18.29 | \$18.30 | 3,485,217 | 0.22% |
| 6/3/2019 | \$18.42 | \$18.41 | \$18.42 | 2,921,978 | 0.65% |

Exhibit-4 EQT Corporation Stock Prices, Volume, and Returns

| Date | EQT Closing Price | EQT Closing Bid | EQT Closing Ask | EQT Trading Volume | EQT Logarithmic Return |
|-----------|----------------------|--------------------|--------------------|--------------------------|------------------------------|
| 6/4/2019 | \$18.56 | \$18.55 | \$18.56 | 3,364,372 | 0.76% |
| 6/5/2019 | \$17.83 | \$17.82 | \$17.83 | 3,944,006 | -4.01% |
| 6/6/2019 | \$18.06 | \$18.05 | \$18.06 | 3,643,259 | 1.28% |
| 6/7/2019 | \$17.69 | \$17.68 | \$17.69 | 3,274,342 | -2.07% |
| 6/10/2019 | \$17.31 | \$17.31 | \$17.32 | 3,686,028 | -2.17% |
| 6/11/2019 | \$16.66 | \$16.66 | \$16.67 | 4,916,739 | -3.83% |
| 6/12/2019 | \$15.77 | \$15.76 | \$15.77 | 5,492,505 | -5.49% |
| 6/13/2019 | \$16.13 | \$16.12 | \$16.13 | 6,151,690 | 2.26% |
| 6/14/2019 | \$15.81 | \$15.80 | \$15.81 | 3,441,130 | -2.00% |
| 6/17/2019 | \$15.85 | \$15.84 | \$15.85 | 3,924,161 | 0.25% |

Source: CRSP

Exhibit-5
Market Index and Sector Index

| | Market Index | Sector Index Logarithmic |
|-----------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 6/19/2017 | 0.76% | -1.10% |
| 6/20/2017 | -0.75% | -1.25% |
| 6/21/2017 | -0.07% | -2.15% |
| 6/22/2017 | 0.08% | -0.01% |
| 6/23/2017 | 0.29% | 1.52% |
| 6/26/2017 | 0.09% | 0.38% |
| 6/27/2017 | -0.75% | -0.13% |
| 6/28/2017 | 1.00% | 0.77% |
| 6/29/2017 | -0.82% | 1.97% |
| 6/30/2017 | 0.14% | 0.45% |
| 7/3/2017 | 0.30% | 1.98% |
| 7/5/2017 | 0.01% | -3.22% |
| 7/6/2017 | -0.93% | -1.69% |
| 7/7/2017 | 0.64% | -0.87% |
| 7/10/2017 | 0.05% | 1.34% |
| 7/11/2017 | 0.02% | 1.23% |
| 7/12/2017 | 0.77% | 0.03% |
| 7/13/2017 | 0.17% | 1.08% |
| 7/14/2017 | 0.48% | 0.66% |
| 7/17/2017 | 0.00% | 0.29% |
| 7/18/2017 | 0.05% | -0.74% |
| 7/19/2017 | 0.60% | 2.99% |
| 7/20/2017 | 0.00% | -1.42% |
| 7/21/2017 | -0.09% | -1.05% |
| 7/24/2017 | -0.01% | -0.02% |
| 7/25/2017 | 0.35% | 2.60% |
| 7/26/2017 | -0.01% | -0.16% |
| 7/27/2017 | -0.21% | 1.09% |
| 7/28/2017 | -0.11% | -0.50% |
| 7/31/2017 | -0.09% | -0.41% |
| 8/1/2017 | 0.24% | -0.80% |
| 8/2/2017 | -0.10% | -2.94% |
| 8/3/2017 | -0.22% | -3.90% |
| 8/4/2017 | 0.20% | 1.69% |
| 8/7/2017 | 0.14% | -2.16% |
| 8/8/2017 | -0.28% | 0.72% |
| 8/9/2017 | -0.14% | 0.53% |
| 8/10/2017 | -1.45% | -1.36% |
| 8/11/2017 | 0.15% | -0.34% |
| 8/14/2017 | 0.98% | -1.14% |
| 8/15/2017 | -0.14% | -0.54% |

Exhibit-5
Market Index and Sector Index

| D | Market Index | Sector Index Logarithmic |
|------------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 8/16/2017 | 0.22% | -1.44% |
| 8/17/2017 | -1.47% | -1.34% |
| 8/18/2017 | -0.12% | 1.06% |
| 8/21/2017 | 0.09% | -0.92% |
| 8/22/2017 | 0.94% | 1.07% |
| 8/23/2017 | -0.19% | 1.11% |
| 8/24/2017 | -0.12% | -0.16% |
| 8/25/2017 | 0.20% | -0.00% |
| 8/28/2017 | 0.03% | -1.00% |
| 8/29/2017 | 0.07% | -0.16% |
| 8/30/2017 | 0.46% | 0.31% |
| 8/31/2017 | 0.69% | 1.51% |
| 9/1/2017 | 0.29% | 1.41% |
| 9/5/2017 | -0.77% | 0.26% |
| 9/6/2017 | 0.32% | 1.86% |
| 9/7/2017 | -0.00% | -0.29% |
| 9/8/2017 | -0.13% | -2.63% |
| 9/11/2017 | 1.02% | 1.25% |
| 9/12/2017 | 0.35% | 1.07% |
| 9/13/2017 | 0.06% | 2.95% |
| 9/14/2017 | -0.05% | 0.92% |
| 9/15/2017 | 0.18% | 0.19% |
| 9/18/2017 | 0.20% | 0.32% |
| 9/19/2017 | 0.11% | -0.14% |
| 9/20/2017 | 0.09% | 1.76% |
| 9/21/2017 | -0.25% | -0.11% |
| 9/22/2017 | 0.11% | 0.67% |
| 9/25/2017 | -0.19% | 2.17% |
| 9/26/2017 | 0.02% | 0.42% |
| 9/27/2017 | 0.50% | 1.01% |
| 9/28/2017 | 0.16% | -0.90% |
| 9/29/2017 | 0.33% | -0.09% |
| 10/2/2017 | 0.45% | 0.94% |
| 10/3/2017 | 0.25% | -0.08% |
| 10/4/2017 | 0.08% | -0.41% |
| 10/5/2017 | 0.48% | 0.57% |
| 10/6/2017 | -0.10% | -1.37% |
| 10/9/2017 | -0.20% | 0.11% |
| 10/10/2017 | 0.27% | -0.19% |
| 10/11/2017 | 0.20% | 0.37% |
| 10/12/2017 | -0.15% | -0.65% |

Exhibit-5
Market Index and Sector Index

| Date | Market Index Logarithmic Return | Sector Index Logarithmic Return |
|------------|------------------------------------|---------------------------------------|
| | | |
| 10/13/2017 | 0.09% | -0.24% |
| 10/16/2017 | 0.10% | 0.18% |
| 10/17/2017 | -0.02% | 0.27% |
| 10/18/2017 | 0.10% | -0.89% |
| 10/19/2017 | -0.01% | -0.57% |
| 10/20/2017 | 0.42% | 0.87% |
| 10/23/2017 | -0.43% | -1.34% |
| 10/24/2017 | 0.17% | -0.10% |
| 10/25/2017 | -0.54% | -1.09% |
| 10/26/2017 | 0.15% | 0.52% |
| 10/27/2017 | 0.76% | 2.58% |
| 10/30/2017 | -0.34% | 0.98% |
| 10/31/2017 | 0.20% | 0.99% |
| 11/1/2017 | 0.07% | 2.77% |
| 11/2/2017 | 0.03% | -0.96% |
| 11/3/2017 | 0.29% | 1.47% |
| 11/6/2017 | 0.21% | 3.27% |
| 11/7/2017 | -0.18% | -0.32% |
| 11/8/2017 | 0.14% | -1.18% |
| 11/9/2017 | -0.36% | 0.96% |
| 11/10/2017 | -0.03% | -0.35% |
| 11/13/2017 | 0.02% | -1.20% |
| 11/14/2017 | -0.26% | -3.12% |
| 11/15/2017 | -0.49% | -1.11% |
| 11/16/2017 | 0.93% | 0.04% |
| 11/17/2017 | -0.09% | 1.24% |
| 11/20/2017 | 0.18% | -1.12% |
| 11/21/2017 | 0.66% | 0.14% |
| 11/22/2017 | -0.01% | 0.83% |
| 11/24/2017 | 0.22% | 0.19% |
| 11/27/2017 | -0.16% | -2.25% |
| 11/28/2017 | 0.88% | 0.46% |
| 11/29/2017 | -0.07% | 0.62% |
| 11/30/2017 | 0.72% | 1.86% |
| 12/1/2017 | -0.11% | 1.53% |
| 12/4/2017 | -0.17% | -1.39% |
| 12/5/2017 | -0.42% | -0.73% |
| 12/6/2017 | -0.14% | -2.65% |
| 12/7/2017 | 0.40% | 0.83% |
| 12/8/2017 | 0.50% | 1.27% |
| 12/11/2017 | 0.28% | 0.88% |
| | | |

Exhibit-5
Market Index and Sector Index

| Date | Market Index Logarithmic Return | Sector Index Logarithmic Return |
|------------|------------------------------------|---------------------------------------|
| | | |
| 12/12/2017 | 0.08% | -0.48% |
| 12/13/2017 | 0.05% | -0.75% |
| 12/14/2017 | -0.44% | -0.75% |
| 12/15/2017 | 0.79% | -1.03% |
| 12/18/2017 | 0.67% | 1.67% |
| 12/19/2017 | -0.34% | 1.10% |
| 12/20/2017 | -0.01% | 2.79% |
| 12/21/2017 | 0.25% | 2.91% |
| 12/22/2017 | -0.02% | 0.83% |
| 12/26/2017 | -0.02% | 2.17% |
| 12/27/2017 | 0.08% | -0.99% |
| 12/28/2017 | 0.25% | 0.45% |
| 12/29/2017 | -0.48% | -0.61% |
| 1/2/2018 | 0.85% | 1.98% |
| 1/3/2018 | 0.58% | 1.23% |
| 1/4/2018 | 0.40% | 0.83% |
| 1/5/2018 | 0.58% | -0.03% |
| 1/8/2018 | 0.18% | 0.47% |
| 1/9/2018 | 0.09% | -0.52% |
| 1/10/2018 | -0.15% | -0.22% |
| 1/11/2018 | 0.83% | 2.95% |
| 1/12/2018 | 0.61% | 0.71% |
| 1/16/2018 | -0.44% | -1.88% |
| 1/17/2018 | 0.85% | 0.54% |
| 1/18/2018 | -0.20% | -0.58% |
| 1/19/2018 | 0.54% | -0.49% |
| 1/22/2018 | 0.76% | 2.73% |
| 1/23/2018 | 0.26% | 0.38% |
| 1/24/2018 | -0.09% | 0.36% |
| 1/25/2018 | 0.01% | -1.20% |
| 1/26/2018 | 0.99% | 0.44% |
| 1/29/2018 | -0.69% | -1.46% |
| 1/30/2018 | -1.02% | -2.69% |
| 1/31/2018 | 0.02% | -0.08% |
| 2/1/2018 | -0.03% | 1.10% |
| 2/2/2018 | -2.11% | -4.17% |
| 2/5/2018 | -3.88% | -3.65% |
| 2/6/2018 | 1.52% | 0.67% |
| 2/7/2018 | -0.42% | -2.24% |
| 2/8/2018 | -3.53% | -4.60% |
| 2/9/2018 | 1.22% | -0.69% |
| , , 10 | <u> </u> | |

Exhibit-5 Market Index and Sector Index

| | Market Index | Sector Index Logarithmic |
|-----------|---------------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 2/12/2018 | 1.31% | 3.22% |
| 2/13/2018 | 0.29% | -1.09% |
| 2/14/2018 | 1.43% | 4.05% |
| 2/15/2018 | 1.11% | -0.25% |
| 2/16/2018 | 0.04% | -0.57% |
| 2/20/2018 | -0.63% | 0.74% |
| 2/21/2018 | -0.44% | -2.83% |
| 2/22/2018 | 0.02% | 0.41% |
| 2/23/2018 | 1.46% | 2.71% |
| 2/26/2018 | 1.00% | 0.33% |
| 2/27/2018 | -1.26% | -2.22% |
| 2/28/2018 | -1.11% | -2.87% |
| 3/1/2018 | -1.09% | 0.38% |
| 3/2/2018 | 0.59% | 1.09% |
| 3/5/2018 | 1.01% | 1.77% |
| 3/6/2018 | 0.41% | -0.79% |
| 3/7/2018 | 0.04% | -0.63% |
| 3/8/2018 | 0.36% | -0.24% |
| 3/9/2018 | 1.56% | 1.89% |
| 3/12/2018 | -0.02% | -0.26% |
| 3/13/2018 | -0.62% | -0.77% |
| 3/14/2018 | -0.46% | -0.03% |
| 3/15/2018 | -0.22% | -1.29% |
| 3/16/2018 | 0.24% | 1.24% |
| 3/19/2018 | -1.30% | -2.18% |
| 3/20/2018 | 0.13% | 2.04% |
| 3/21/2018 | 0.04% | 4.34% |
| 3/22/2018 | -2.42% | -1.35% |
| 3/23/2018 | -1.95% | 0.18% |
| 3/26/2018 | 2.40% | 1.75% |
| 3/27/2018 | -1.67% | -1.93% |
| 3/28/2018 | -0.26% | -2.61% |
| 3/29/2018 | 1.34% | 2.61% |
| 4/2/2018 | -2.16% | -3.46% |
| 4/3/2018 | 1.15% | 1.94% |
| 4/4/2018 | 1.03% | -0.29% |
| 4/5/2018 | 0.74% | 1.90% |
| 4/6/2018 | -2.02% | -2.84% |
| 4/9/2018 | 0.28% | 0.51% |
| 4/10/2018 | 1.63% | 4.17% |
| 4/11/2018 | -0.38% | 1.75% |

Exhibit-5
Market Index and Sector Index

| D . (| Market Index | Sector Index Logarithmic |
|--------------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 4/12/2018 | 0.69% | -0.35% |
| 4/13/2018 | -0.31% | 1.75% |
| 4/16/2018 | 0.80% | 0.45% |
| 4/17/2018 | 1.02% | 0.46% |
| 4/18/2018 | 0.16% | 2.56% |
| 4/19/2018 | -0.54% | 0.08% |
| 4/20/2018 | -0.75% | -0.38% |
| 4/23/2018 | -0.04% | 0.70% |
| 4/24/2018 | -1.14% | -1.35% |
| 4/25/2018 | 0.08% | 1.19% |
| 4/26/2018 | 0.90% | 0.98% |
| 4/27/2018 | 0.07% | -1.00% |
| 4/30/2018 | -0.73% | 1.07% |
| 5/1/2018 | 0.22% | -0.51% |
| 5/2/2018 | -0.56% | -0.05% |
| 5/3/2018 | -0.23% | -1.42% |
| 5/4/2018 | 1.22% | 0.77% |
| 5/7/2018 | 0.41% | 0.18% |
| 5/8/2018 | 0.04% | 1.87% |
| 5/9/2018 | 0.86% | 1.84% |
| 5/10/2018 | 0.86% | 0.31% |
| 5/11/2018 | 0.15% | -0.96% |
| 5/14/2018 | 0.08% | 0.89% |
| 5/15/2018 | -0.58% | 0.69% |
| 5/16/2018 | 0.48% | 0.76% |
| 5/17/2018 | 0.03% | 2.49% |
| 5/18/2018 | -0.22% | -0.95% |
| 5/21/2018 | 0.70% | 1.41% |
| 5/22/2018 | -0.35% | -2.39% |
| 5/23/2018 | 0.23% | -0.67% |
| 5/24/2018 | -0.18% | -1.90% |
| 5/25/2018 | -0.22% | -2.59% |
| 5/29/2018 | -1.00% | -0.42% |
| 5/30/2018 | 1.30% | 3.36% |
| 5/31/2018 | -0.65% | -1.34% |
| 6/1/2018 | 0.96% | -0.24% |
| 6/4/2018 | 0.45% | -1.93% |
| 6/5/2018 | 0.15% | -0.66% |
| 6/6/2018 | 0.79% | 0.53% |
| 6/7/2018 | -0.11% | 2.28% |
| 6/8/2018 | 0.30% | -0.35% |

Exhibit-5
Market Index and Sector Index

| | Market Index | Sector Index Logarithmic |
|-----------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 6/11/2018 | 0.15% | 0.73% |
| 6/12/2018 | 0.19% | 0.11% |
| 6/13/2018 | -0.36% | 0.05% |
| 6/14/2018 | 0.26% | -1.03% |
| 6/15/2018 | -0.16% | -3.02% |
| 6/18/2018 | -0.07% | 2.16% |
| 6/19/2018 | -0.41% | 0.32% |
| 6/20/2018 | 0.27% | 2.08% |
| 6/21/2018 | -0.69% | -2.43% |
| 6/22/2018 | 0.23% | 3.43% |
| 6/25/2018 | -1.45% | -2.65% |
| 6/26/2018 | 0.29% | 2.37% |
| 6/27/2018 | -0.98% | 2.63% |
| 6/28/2018 | 0.56% | -0.66% |
| 6/29/2018 | 0.16% | 0.43% |
| 7/2/2018 | 0.22% | -2.09% |
| 7/3/2018 | -0.29% | 0.94% |
| 7/5/2018 | 0.84% | -0.21% |
| 7/6/2018 | 0.84% | 1.35% |
| 7/9/2018 | 0.84% | 2.17% |
| 7/10/2018 | 0.23% | 0.29% |
| 7/11/2018 | -0.74% | -2.61% |
| 7/12/2018 | 0.82% | -0.22% |
| 7/13/2018 | 0.07% | 1.07% |
| 7/16/2018 | -0.18% | -2.03% |
| 7/17/2018 | 0.39% | -0.45% |
| 7/18/2018 | 0.25% | -0.07% |
| 7/19/2018 | -0.25% | 0.11% |
| 7/20/2018 | -0.10% | -0.40% |
| 7/23/2018 | 0.10% | -0.04% |
| 7/24/2018 | 0.20% | 1.70% |
| 7/25/2018 | 0.82% | 0.94% |
| 7/26/2018 | -0.16% | 0.19% |
| 7/27/2018 | -0.77% | -1.37% |
| 7/30/2018 | -0.56% | 1.65% |
| 7/31/2018 | 0.55% | -0.26% |
| 8/1/2018 | -0.13% | -2.16% |
| 8/2/2018 | 0.55% | 0.35% |
| 8/3/2018 | 0.33% | -2.28% |
| 8/6/2018 | 0.38% | 0.87% |
| 8/7/2018 | 0.22% | -0.35% |

Exhibit-5 Market Index and Sector Index

| _ | Market Index | Sector Index Logarithmic |
|-----------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 8/8/2018 | -0.03% | -0.95% |
| 8/9/2018 | -0.03% | -0.71% |
| 8/10/2018 | -0.64% | 0.93% |
| 8/13/2018 | -0.47% | -1.63% |
| 8/14/2018 | 0.66% | 0.99% |
| 8/15/2018 | -0.91% | -5.55% |
| 8/16/2018 | 0.80% | 0.65% |
| 8/17/2018 | 0.39% | -0.02% |
| 8/20/2018 | 0.28% | 0.31% |
| 8/21/2018 | 0.31% | 0.97% |
| 8/22/2018 | 0.07% | 1.81% |
| 8/23/2018 | -0.24% | -0.82% |
| 8/24/2018 | 0.62% | 0.81% |
| 8/27/2018 | 0.71% | 0.84% |
| 8/28/2018 | 0.00% | -0.70% |
| 8/29/2018 | 0.52% | 1.08% |
| 8/30/2018 | -0.45% | 0.10% |
| 8/31/2018 | 0.03% | -0.66% |
| 9/4/2018 | -0.22% | -1.47% |
| 9/5/2018 | -0.35% | -0.16% |
| 9/6/2018 | -0.40% | -2.64% |
| 9/7/2018 | -0.24% | -0.69% |
| 9/10/2018 | 0.23% | -0.05% |
| 9/11/2018 | 0.32% | 1.70% |
| 9/12/2018 | 0.08% | 0.89% |
| 9/13/2018 | 0.43% | -0.23% |
| 9/14/2018 | 0.09% | 0.62% |
| 9/17/2018 | -0.60% | 0.06% |
| 9/18/2018 | 0.55% | 1.84% |
| 9/19/2018 | 0.05% | 1.18% |
| 9/20/2018 | 0.78% | -0.89% |
| 9/21/2018 | -0.10% | 0.66% |
| 9/24/2018 | -0.37% | 2.62% |
| 9/25/2018 | -0.05% | 1.02% |
| 9/26/2018 | -0.40% | -1.31% |
| 9/27/2018 | 0.24% | 0.76% |
| 9/28/2018 | 0.01% | 0.67% |
| 10/1/2018 | 0.18% | 1.77% |
| 10/2/2018 | -0.23% | -0.31% |
| 10/3/2018 | 0.16% | 1.58% |
| 10/4/2018 | -0.94% | -1.14% |

Exhibit-5
Market Index and Sector Index

| Data | Market Index | Sector Index Logarithmic |
|------------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 10/5/2018 | -0.61% | 0.16% |
| 10/8/2018 | -0.13% | -0.95% |
| 10/9/2018 | -0.18% | 1.79% |
| 10/10/2018 | -3.18% | -5.04% |
| 10/11/2018 | -1.90% | -3.37% |
| 10/12/2018 | 1.22% | 1.00% |
| 10/15/2018 | -0.37% | 0.43% |
| 10/16/2018 | 2.12% | 0.70% |
| 10/17/2018 | -0.14% | -1.80% |
| 10/18/2018 | -1.47% | -1.61% |
| 10/19/2018 | -0.18% | -0.45% |
| 10/22/2018 | -0.39% | -1.67% |
| 10/23/2018 | -0.60% | -3.58% |
| 10/24/2018 | -3.11% | -5.17% |
| 10/25/2018 | 1.73% | 1.34% |
| 10/26/2018 | -1.56% | -1.12% |
| 10/29/2018 | -0.70% | -4.09% |
| 10/30/2018 | 1.55% | 2.59% |
| 10/31/2018 | 1.04% | 0.35% |
| 11/1/2018 | 1.29% | 1.15% |
| 11/2/2018 | -0.48% | -2.62% |
| 11/5/2018 | 0.44% | 2.93% |
| 11/6/2018 | 0.57% | -0.22% |
| 11/7/2018 | 1.91% | 2.99% |
| 11/8/2018 | -0.29% | -3.24% |
| 11/9/2018 | -0.98% | 0.77% |
| 11/12/2018 | -1.91% | -3.76% |
| 11/13/2018 | -0.12% | -0.85% |
| 11/14/2018 | -0.66% | -1.40% |
| 11/15/2018 | 1.07% | 0.50% |
| 11/16/2018 | 0.21% | -0.97% |
| 11/19/2018 | -1.67% | -0.06% |
| 11/20/2018 | -1.81% | -4.90% |
| 11/21/2018 | 0.62% | 2.35% |
| 11/23/2018 | -0.56% | -2.83% |
| 11/26/2018 | 1.45% | -0.10% |
| 11/27/2018 | 0.05% | -2.12% |
| 11/28/2018 | 2.21% | 2.13% |
| 11/29/2018 | -0.18% | 0.29% |
| 11/30/2018 | 0.68% | -1.36% |
| 12/3/2018 | 1.14% | 2.55% |

Exhibit-5 Market Index and Sector Index

| | Market Index | Sector Index Logarithmic |
|------------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 12/4/2018 | -3.23% | -3.47% |
| 12/6/2018 | -0.19% | -3.09% |
| 12/7/2018 | -2.13% | -0.18% |
| 12/10/2018 | -0.02% | -2.59% |
| 12/11/2018 | -0.07% | -0.80% |
| 12/12/2018 | 0.63% | -0.40% |
| 12/13/2018 | -0.21% | -0.71% |
| 12/14/2018 | -1.72% | -5.78% |
| 12/17/2018 | -2.11% | -3.44% |
| 12/18/2018 | -0.02% | -1.87% |
| 12/19/2018 | -1.49% | -1.86% |
| 12/20/2018 | -1.55% | -2.76% |
| 12/21/2018 | -2.08% | -1.60% |
| 12/24/2018 | -2.45% | -4.93% |
| 12/26/2018 | 4.58% | 9.42% |
| 12/27/2018 | 0.68% | 0.41% |
| 12/28/2018 | 0.02% | -2.68% |
| 12/31/2018 | 0.83% | -0.51% |
| 1/2/2019 | 0.18% | 3.50% |
| 1/3/2019 | -2.13% | -0.48% |
| 1/4/2019 | 3.29% | 3.88% |
| 1/7/2019 | 0.92% | 4.34% |
| 1/8/2019 | 1.02% | 1.33% |
| 1/9/2019 | 0.62% | 1.70% |
| 1/10/2019 | 0.45% | 0.90% |
| 1/11/2019 | -0.02% | -0.25% |
| 1/14/2019 | -0.55% | 1.22% |
| 1/15/2019 | 0.98% | 1.23% |
| 1/16/2019 | 0.32% | 0.42% |
| 1/17/2019 | 0.71% | 0.36% |
| 1/18/2019 | 1.20% | 1.92% |
| 1/22/2019 | -1.43% | -3.94% |
| 1/23/2019 | 0.13% | -1.58% |
| 1/24/2019 | 0.28% | 1.48% |
| 1/25/2019 | 0.95% | 2.10% |
| 1/28/2019 | -0.65% | -1.33% |
| 1/29/2019 | -0.09% | 0.39% |
| 1/30/2019 | 1.43% | 1.67% |
| 1/31/2019 | 0.84% | -2.82% |
| 2/1/2019 | 0.14% | 0.42% |
| 2/4/2019 | 0.67% | 0.03% |

Exhibit-5
Market Index and Sector Index

| Dit | Market Index | Sector Index Logarithmic |
|-----------|--------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 2/5/2019 | 0.44% | -1.69% |
| 2/6/2019 | -0.25% | -1.91% |
| 2/7/2019 | -0.89% | -4.79% |
| 2/8/2019 | 0.07% | -1.07% |
| 2/11/2019 | 0.13% | 2.27% |
| 2/12/2019 | 1.23% | 1.29% |
| 2/13/2019 | 0.28% | 1.68% |
| 2/14/2019 | -0.14% | 0.89% |
| 2/15/2019 | 1.08% | 3.22% |
| 2/19/2019 | 0.24% | -0.50% |
| 2/20/2019 | 0.21% | 1.22% |
| 2/21/2019 | -0.35% | -2.67% |
| 2/22/2019 | 0.63% | -0.33% |
| 2/25/2019 | 0.14% | 1.06% |
| 2/26/2019 | -0.15% | -1.19% |
| 2/27/2019 | 0.05% | -0.17% |
| 2/28/2019 | -0.28% | -0.01% |
| 3/1/2019 | 0.61% | 2.59% |
| 3/4/2019 | -0.42% | 1.02% |
| 3/5/2019 | -0.13% | -0.14% |
| 3/6/2019 | -0.78% | -3.06% |
| 3/7/2019 | -0.75% | -1.66% |
| 3/8/2019 | -0.19% | -3.81% |
| 3/11/2019 | 1.42% | 1.45% |
| 3/12/2019 | 0.27% | 3.11% |
| 3/13/2019 | 0.64% | 2.34% |
| 3/14/2019 | -0.10% | 0.06% |
| 3/15/2019 | 0.45% | -1.20% |
| 3/18/2019 | 0.44% | 2.45% |
| 3/19/2019 | -0.07% | -1.15% |
| 3/20/2019 | -0.31% | 2.77% |
| 3/21/2019 | 1.02% | 0.38% |
| 3/22/2019 | -2.05% | -5.12% |
| 3/25/2019 | -0.03% | 0.11% |
| 3/26/2019 | 0.77% | 2.41% |
| 3/27/2019 | -0.47% | -0.38% |
| 3/28/2019 | 0.41% | 0.74% |
| 3/29/2019 | 0.60% | 0.04% |
| 4/1/2019 | 1.12% | 0.83% |
| 4/2/2019 | -0.01% | -1.22% |
| 4/3/2019 | 0.25% | -3.71% |

Exhibit-5
Market Index and Sector Index

| | Market Index | Sector Index Logarithmic |
|-----------|---------------------------|-----------------------------|
| Date | Logarithmic Return | Return |
| 4/4/2019 | 0.19% | 1.80% |
| 4/5/2019 | 0.51% | 3.28% |
| 4/8/2019 | 0.10% | 1.05% |
| 4/9/2019 | -0.63% | -2.21% |
| 4/10/2019 | 0.48% | 1.18% |
| 4/11/2019 | -0.01% | -1.36% |
| 4/12/2019 | 0.64% | 2.85% |
| 4/15/2019 | -0.10% | -1.39% |
| 4/16/2019 | 0.07% | 0.19% |
| 4/17/2019 | -0.31% | -1.10% |
| 4/18/2019 | 0.11% | -2.16% |
| 4/22/2019 | 0.06% | 2.46% |
| 4/23/2019 | 0.89% | 0.70% |
| 4/24/2019 | -0.21% | -1.48% |
| 4/25/2019 | -0.15% | -2.13% |
| 4/26/2019 | 0.54% | -0.74% |
| 4/29/2019 | 0.15% | -0.65% |
| 4/30/2019 | 0.04% | -1.82% |
| 5/1/2019 | -0.76% | -3.08% |
| 5/2/2019 | -0.17% | -2.28% |
| 5/3/2019 | 1.08% | 2.47% |
| 5/6/2019 | -0.38% | 1.31% |
| 5/7/2019 | -1.63% | -0.59% |
| 5/8/2019 | -0.16% | 1.17% |
| 5/9/2019 | -0.28% | -0.44% |
| 5/10/2019 | 0.40% | -0.26% |
| 5/13/2019 | -2.48% | -3.00% |
| 5/14/2019 | 0.89% | 3.39% |
| 5/15/2019 | 0.57% | 0.55% |
| 5/16/2019 | 0.84% | 0.26% |
| 5/17/2019 | -0.68% | -2.82% |
| 5/20/2019 | -0.65% | -0.79% |
| 5/21/2019 | 0.89% | 2.98% |
| 5/22/2019 | -0.38% | -4.80% |
| 5/23/2019 | -1.28% | -5.16% |
| 5/24/2019 | 0.28% | -0.05% |
| 5/28/2019 | -0.75% | -1.35% |
| 5/29/2019 | -0.69% | 0.74% |
| 5/30/2019 | 0.14% | -3.65% |
| 5/31/2019 | -1.18% | -1.98% |
| 6/3/2019 | -0.21% | 1.21% |

Exhibit-5 Market Index and Sector Index19 June 2017 through 17 June 2019

| Date | Market Index Logarithmic Return | Sector Index Logarithmic Return |
|-----------|------------------------------------|---------------------------------------|
| 6/4/2019 | 2.07% | 1.70% |
| 6/5/2019 | 0.65% | -4.54% |
| 6/6/2019 | 0.51% | 0.80% |
| 6/7/2019 | 0.96% | -0.91% |
| 6/10/2019 | 0.48% | -1.86% |
| 6/11/2019 | -0.06% | -0.09% |
| 6/12/2019 | -0.19% | -4.22% |
| 6/13/2019 | 0.49% | 2.62% |
| 6/14/2019 | -0.27% | -2.97% |
| 6/17/2019 | 0.16% | 2.00% |

Sources: Bloomberg and CRSP.

Exhibit-6a EQT Corporation Regression Results

Estimation Period: 19 June 2017 through 12 November 2017

| Regression Statistics | |
|-----------------------|-------|
| R Squared | 0.296 |
| Adjusted R Squared | 0.267 |
| Standard Error | 1.68% |
| Observations | 103 |

| | Coefficient | Standard Error | t-statistic |
|-----------------|-------------|----------------|-------------|
| Intercept | -0.02% | 0.17% | -0.10 |
| Market Index | 0.156 | 0.414 | 0.38 |
| Sector Index | 0.700 | 0.131 | 5.34 |
| 27 July 2017 | 3.95% | 1.70% | 2.33 |
| 26 October 2017 | -1.68% | 1.68% | -1.00 |

Exhibit-6b EQT Corporation Regression Results

Estimation Period: 13 November 2017 through 12 November 2018

| Regression Statistics | s |
|-----------------------|-------|
| R Squared | 0.538 |
| Adjusted R Squared | 0.526 |
| Standard Error | 1.73% |
| Observations | 252 |

| | Coefficient | Standard Error | t-statistic |
|------------------|-------------|----------------|-------------|
| Intercept | -0.25% | 0.11% | -2.26 |
| Market Index | 0.570 | 0.162 | 3.51 |
| Sector Index | 0.608 | 0.080 | 7.63 |
| 15 February 2018 | 9.26% | 1.74% | 5.32 |
| 26 April 2018 | 7.29% | 1.73% | 4.21 |
| 26 July 2018 | -1.76% | 1.73% | -1.02 |
| 25 October 2018 | -15.08% | 1.74% | -8.65 |

Exhibit-6c EQT Corporation Regression Results

Estimation Period: 13 November 2018 through 17 June 2019

| Regression Statistics | |
|-----------------------|-------|
| R Squared | 0.509 |
| Adjusted R Squared | 0.495 |
| Standard Error | 2.03% |
| Observations | 147 |

| | Coefficient | Standard Error | t-statistic |
|------------------|-------------|----------------|-------------|
| Intercept | 0.26% | 0.17% | 1.48 |
| Market Index | -0.211 | 0.220 | -0.96 |
| Sector Index | 0.911 | 0.096 | 9.49 |
| 14 February 2019 | -6.33% | 2.04% | -3.10 |
| 25 April 2019 | -1.23% | 2.04% | -0.60 |

Exhibit-7a
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 19 June 2017 through 12 November 2017

| | FOF | EQT Prior | TOT. | | ~ · · · · · | FOF | E O E | | |
|-----------|------------------|--------------------|--------|-----------------------|-------------|---------------------|--------------------|-----------------|--------|
| | EQT | Day | EQT | Market Index | | EQT Explained | EQT Pasidual | | |
| Date | Closing Price | Closing Price | Return | Logarithmic Return | Return | Explained Return | Residual Return | <i>t</i> -stati | stic |
| | 0.52.51 | | | | 1.100/ | | | | *** |
| 6/19/2017 | \$53.51 | \$58.77 | -9.38% | 0.76% | -1.10% | -0.77% | -8.60% | -5.13 | 4-4-4- |
| 6/20/2017 | \$52.42 | \$53.51 \$52.42 | -2.06% | -0.75% | -1.25% | -0.05% | -2.01% | -1.20 | * |
| 6/21/2017 | \$50.83 | \$52.42 | -3.08% | -0.07% | -2.15% | 0.04% | -3.12% | -1.86 | * |
| 6/22/2017 | \$52.03 | \$50.83 | 2.33% | 0.08% | -0.01% | -0.00% | 2.33% | 1.39 | *** |
| 6/23/2017 | \$56.19 | \$52.03 | 7.69% | 0.29% | 1.52% | -0.00% | 7.69% | 4.59 | ** |
| 6/26/2017 | \$58.35 | \$56.19 | 3.77% | 0.09% | 0.38% | -0.00% | 3.77% | 2.25 | ** |
| 6/27/2017 | \$58.27 | \$58.35 | -0.14% | -0.75% | -0.13% | 0.00% | -0.14% | -0.08 | |
| 6/28/2017 | \$58.75 | \$58.27 | 0.82% | 1.00% | 0.77% | -0.00% | 0.82% | 0.49 | |
| 6/29/2017 | \$59.01 | \$58.75 | 0.44% | -0.82% | 1.97% | 0.00% | 0.44% | 0.26 | |
| 6/30/2017 | \$58.59 | \$59.01 | -0.71% | 0.14% | 0.45% | -0.00% | -0.71% | -0.43 | |
| 7/3/2017 | \$59.75 | \$58.59 | 1.96% | 0.30% | 1.98% | -0.00% | 1.96% | 1.17 | |
| 7/5/2017 | \$59.79 | \$59.75 | 0.07% | 0.01% | -3.22% | -0.00% | 0.07% | 0.04 | |
| 7/6/2017 | \$59.00 | \$59.79 | -1.33% | -0.93% | -1.69% | 0.00% | -1.33% | -0.79 | |
| 7/7/2017 | \$58.74 | \$59.00 | -0.44% | 0.64% | -0.87% | -0.00% | -0.44% | -0.26 | |
| 7/10/2017 | \$59.90 | \$58.74 | 1.96% | 0.05% | 1.34% | -0.00% | 1.96% | 1.17 | |
| 7/11/2017 | \$61.04 | \$59.90 | 1.89% | 0.02% | 1.23% | -0.00% | 1.89% | 1.13 | |
| 7/12/2017 | \$61.23 | \$61.04 | 0.31% | 0.77% | 0.03% | -0.00% | 0.31% | 0.19 | |
| 7/13/2017 | \$61.70 | \$61.23 | 0.76% | 0.17% | 1.08% | -0.00% | 0.76% | 0.46 | |
| 7/14/2017 | \$61.88 | \$61.70 | 0.29% | 0.48% | 0.66% | -0.00% | 0.29% | 0.17 | |
| 7/17/2017 | \$62.17 | \$61.88 | 0.47% | 0.00% | 0.29% | -0.00% | 0.47% | 0.28 | |
| 7/18/2017 | \$61.15 | \$62.17 | -1.65% | 0.05% | -0.74% | -0.00% | -1.65% | -0.99 | |
| 7/19/2017 | \$62.52 | \$61.15 | 2.22% | 0.60% | 2.99% | -0.00% | 2.22% | 1.32 | |
| 7/20/2017 | \$61.96 | \$62.52 | -0.90% | 0.00% | -1.42% | -0.00% | -0.90% | -0.54 | |
| 7/21/2017 | \$62.94 | \$61.96 | 1.57% | -0.09% | -1.05% | 0.00% | 1.57% | 0.94 | |
| 7/24/2017 | \$63.08 | \$62.94 | 0.22% | -0.01% | -0.02% | 0.00% | 0.22% | 0.13 | |
| 7/25/2017 | \$64.06 | \$63.08 | 1.54% | 0.35% | 2.60% | -0.00% | 1.54% | 0.92 | |
| 7/26/2017 | \$63.97 | \$64.06 | -0.14% | -0.01% | -0.16% | 0.00% | -0.14% | -0.08 | |
| 7/27/2017 | \$67.02 | \$63.97 | 4.66% | -0.21% | 1.09% | 0.00% | 4.66% | 2.78 | *** |
| 7/28/2017 | \$66.10 | \$67.02 | -1.38% | -0.11% | -0.50% | 0.00% | -1.38% | -0.82 | 4.4 |
| 7/31/2017 | \$63.70 | \$66.10 | -3.70% | -0.09% | -0.41% | 0.00% | -3.70% | -2.21 | ** |
| 8/1/2017 | \$63.93 | \$63.70 | 0.36% | 0.24% | -0.80% | -0.00% | 0.36% | 0.22 | |
| 8/2/2017 | \$63.01 | \$63.93 | -1.45% | -0.10% | -2.94% | 0.00% | -1.45% | -0.87 | |
| 8/3/2017 | \$62.12 | \$63.01 | -1.42% | -0.22% | -3.90% | 0.00% | -1.42% | -0.85 | |
| 8/4/2017 | \$62.46 | \$62.12 | 0.55% | 0.20% | 1.69% | -0.00% | 0.55% | 0.33 | |
| 8/7/2017 | \$61.66 | \$62.46 | -1.29% | 0.14% | -2.16% | -0.00% | -1.29% | -0.77 | |
| 8/8/2017 | \$62.78 | \$61.66 | 1.80% | -0.28% | 0.72% | 0.00% | 1.80% | 1.07 | |
| 8/9/2017 | \$62.71 | \$62.78 | -0.06% | -0.14% | 0.53% | 0.00% | -0.06% | -0.04 | |
| 8/10/2017 | \$62.07 | \$62.71 | -1.03% | -1.45% | -1.36% | 0.00% | -1.03% | -0.61 | |
| 8/11/2017 | \$62.93 | \$62.07 | 1.38% | 0.15% | -0.34% | -0.00% | 1.38% | 0.82 | |
| 8/14/2017 | \$61.82 | \$62.93 | -1.78% | 0.98% | -1.14% | -0.00% | -1.78% | -1.06 | |
| 8/15/2017 | \$61.05 | \$61.82 | -1.25% | -0.14% | -0.54% | 0.00% | -1.25% | -0.75 | |
| 8/16/2017 | \$60.76 | \$61.05 | -0.48% | 0.22% | -1.44% | -0.00% | -0.48% | -0.28 | |
| 8/17/2017 | \$61.05 | \$60.76 | 0.48% | -1.47% | -1.34% | 0.00% | 0.48% | 0.28 | |
| 8/18/2017 | \$60.25 | \$61.05 | -1.32% | -0.12% | 1.06% | 0.00% | -1.32% | -0.79 | |
| 8/21/2017 | \$60.18 | \$60.25 | -0.12% | 0.09% | -0.92% | -0.00% | -0.12% | -0.07 | |
| 8/22/2017 | \$61.26 | \$60.18 | 1.78% | 0.94% | 1.07% | -0.00% | 1.78% | 1.06 | |
| 8/23/2017 | \$61.04 | \$61.26 | -0.36% | -0.19% | 1.11% | 0.00% | -0.36% | -0.21 | |
| 8/24/2017 | \$61.28 | \$61.04 | 0.39% | -0.12% | -0.16% | 0.00% | 0.39% | 0.23 | |
| 8/25/2017 | \$61.06 | \$61.28 | -0.36% | 0.20% | -0.00% | -0.00% | -0.36% | -0.21 | |
| 8/28/2017 | \$60.83 | \$61.06 | -0.38% | 0.03% | -1.00% | -0.00% | -0.38% | -0.23 | |
| 8/29/2017 | \$61.18 | \$60.83 | 0.57% | 0.07% | -0.16% | -0.00% | 0.57% | 0.34 | |
| 8/30/2017 | \$61.78 | \$61.18 | 0.98% | 0.46% | 0.31% | -0.00% | 0.98% | 0.58 | |
| 8/31/2017 | \$62.34 | \$61.78 | 0.90% | 0.69% | 1.51% | -0.00% | 0.90% | 0.54 | |
| 9/1/2017 | \$62.61 | \$62.34 | 0.43% | 0.29% | 1.41% | -0.00% | 0.43% | 0.26 | |
| 9/5/2017 | \$62.69 | \$62.61 | 0.13% | -0.77% | 0.26% | 0.00% | 0.13% | 0.08 | |

Exhibit-7a
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 19 June 2017 through 12 November 2017

| Date | EQT Closing Price | EQT Prior Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -statistic |
|------------|-------------------------|--------------------------------------|------------------------------|---------------------------------------|--------|----------------------------|---------------------------|---------------------|
| 9/6/2017 | \$62.92 | \$62.69 | 0.37% | 0.32% | 1.86% | -0.00% | 0.37% | 0.22 |
| 9/7/2017 | \$62.11 | \$62.92 | -1.30% | -0.00% | -0.29% | 0.00% | -1.30% | -0.77 |
| 9/8/2017 | \$60.67 | \$62.11 | -2.35% | -0.13% | -2.63% | 0.00% | -2.35% | -1.40 |
| 9/11/2017 | \$60.98 | \$60.67 | 0.51% | 1.02% | 1.25% | -0.00% | 0.51% | 0.30 |
| 9/12/2017 | \$62.23 | \$60.98 | 2.03% | 0.35% | 1.07% | -0.00% | 2.03% | 1.21 |
| 9/13/2017 | \$63.11 | \$62.23 | 1.40% | 0.06% | 2.95% | -0.00% | 1.40% | 0.84 |
| 9/14/2017 | \$64.87 | \$63.11 | 2.75% | -0.05% | 0.92% | 0.00% | 2.75% | 1.64 |
| 9/15/2017 | \$64.86 | \$64.87 | -0.02% | 0.18% | 0.19% | -0.00% | -0.02% | -0.01 |
| 9/18/2017 | \$64.32 | \$64.86 | -0.84% | 0.20% | 0.32% | -0.00% | -0.84% | -0.50 |
| 9/19/2017 | \$64.12 | \$64.32 | -0.31% | 0.11% | -0.14% | -0.00% | -0.31% | -0.19 |
| 9/20/2017 | \$64.50 | \$64.12 | 0.59% | 0.09% | 1.76% | -0.00% | 0.59% | 0.35 |
| 9/21/2017 | \$63.84 | \$64.50 | -1.03% | -0.25% | -0.11% | 0.00% | -1.03% | -0.61 |
| 9/22/2017 | \$64.26 | \$63.84 | 0.66% | 0.11% | 0.67% | -0.00% | 0.66% | 0.39 |
| 9/25/2017 | \$64.45 | \$64.26 | 0.30% | -0.19% | 2.17% | 0.00% | 0.30% | 0.18 |
| 9/26/2017 | \$64.95 | \$64.45 | 0.77% | 0.02% | 0.42% | -0.00% | 0.77% | 0.46 |
| 9/27/2017 | \$65.28 | \$64.95 | 0.51% | 0.50% | 1.01% | -0.00% | 0.51% | 0.30 |
| 9/28/2017 | \$65.06 | \$65.28 | -0.34% | 0.16% | -0.90% | -0.00% | -0.34% | -0.20 |
| 9/29/2017 | \$65.24 | \$65.06 | 0.28% | 0.33% | -0.09% | -0.00% | 0.28% | 0.16 |
| 10/2/2017 | \$65.36 | \$65.24 | 0.18% | 0.45% | 0.94% | -0.00% | 0.18% | 0.11 |
| 10/3/2017 | \$64.21 | \$65.36 | -1.78% | 0.25% | -0.08% | -0.00% | -1.78% | -1.06 |
| 10/4/2017 | \$64.21 | \$64.21 | 0.00% | 0.08% | -0.41% | -0.00% | 0.00% | 0.00 |
| 10/5/2017 | \$65.05 | \$64.21 | 1.30% | 0.48% | 0.57% | -0.00% | 1.30% | 0.78 |
| 10/6/2017 | \$63.61 | \$65.05 | -2.24% | -0.10% | -1.37% | 0.00% | -2.24% | -1.34 |
| 10/9/2017 | \$62.90 | \$63.61 | -1.12% | -0.20% | 0.11% | 0.00% | -1.12% | -0.67 |
| 10/10/2017 | \$62.88 | \$62.90 | -0.03% | 0.27% | -0.19% | -0.00% | -0.03% | -0.02 |
| 10/11/2017 | \$63.10 | \$62.88 | 0.35% | 0.20% | 0.37% | -0.00% | 0.35% | 0.21 |
| 10/12/2017 | \$63.49 | \$63.10 | 0.62% | -0.15% | -0.65% | 0.00% | 0.62% | 0.37 |
| 10/13/2017 | \$63.01 | \$63.49 | -0.76% | 0.09% | -0.24% | -0.00% | -0.76% | -0.45 |
| 10/16/2017 | \$62.56 | \$63.01 | -0.72% | 0.10% | 0.18% | -0.00% | -0.72% | -0.43 |
| 10/17/2017 | \$63.32 | \$62.56 | 1.21% | -0.02% | 0.27% | 0.00% | 1.21% | 0.72 |
| 10/18/2017 | \$62.94 | \$63.32 | -0.60% | 0.10% | -0.89% | -0.00% | -0.60% | -0.36 |
| 10/19/2017 | \$63.06 | \$62.94 | 0.19% | -0.01% | -0.57% | 0.00% | 0.19% | 0.11 |
| 10/20/2017 | \$63.35 | \$63.06 | 0.46% | 0.42% | 0.87% | -0.00% | 0.46% | 0.27 |
| 10/23/2017 | \$62.97 | \$63.35 | -0.60% | -0.43% | -1.34% | 0.00% | -0.60% | -0.36 |
| 10/24/2017 | \$64.05 | \$62.97 | 1.70% | 0.17% | -0.10% | -0.00% | 1.70% | 1.01 |
| 10/25/2017 | \$60.86 | \$64.05 | -5.11% | -0.54% | -1.09% | 0.00% | -5.11% | -3.05 * |
| 10/26/2017 | \$60.07 | \$60.86 | -1.31% | 0.15% | 0.52% | -0.00% | -1.31% | -0.78 |
| 10/27/2017 | \$63.31 | \$60.07 | 5.25% | 0.76% | 2.58% | -0.00% | 5.25% | 3.14 * |
| 10/30/2017 | \$61.95 | \$63.31 | -2.17% | -0.34% | 0.98% | 0.00% | -2.17% | -1.30 |
| 10/31/2017 | \$62.54 | \$61.95 | 0.95% | 0.20% | 0.99% | -0.00% | 0.95% | 0.57 |
| 11/1/2017 | \$62.06 | \$62.54 | -0.77% | 0.07% | 2.77% | -0.00% | -0.77% | -0.46 |
| 11/2/2017 | \$62.03 | \$62.06 | -0.05% | 0.03% | -0.96% | -0.00% | -0.05% | -0.03 |
| 11/3/2017 | \$62.78 | \$62.03 | 1.20% | 0.29% | 1.47% | -0.00% | 1.20% | 0.72 |
| 11/6/2017 | \$63.83 | \$62.78 | 1.66% | 0.21% | 3.27% | -0.00% | 1.66% | 0.99 |
| 11/7/2017 | \$63.24 | \$63.83 | -0.93% | -0.18% | -0.32% | 0.00% | -0.93% | -0.55 |
| 11/8/2017 | \$64.45 | \$63.24 | 1.90% | 0.14% | -1.18% | -0.00% | 1.90% | 1.13 |
| 11/9/2017 | \$65.91 | \$64.45 | 2.29% | -0.36% | 0.96% | 0.00% | 2.29% | 1.36 |
| 11/10/2017 | \$65.18 | \$65.91 | -1.11% | -0.03% | -0.35% | 0.00% | -1.11% | -0.66 |

Notes

[&]quot;*" indicates statistical significance at the 90% confidence level.

[&]quot;**" indicates statistical significance at the 95% confidence level.

[&]quot;***" indicates statistical significance at the 99% confidence level.

Exhibit-7b
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2017 through 12 November 2018

| | | EQT Prior | | | | | | | |
|----------------------|-------------------------|--------------------|------------------------------|---------------------------------------|-----------------|----------------------------|---------------------------|----------------------------|------|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -stati | stic |
| 11/13/2017 | \$64.58 | \$65.18 | -0.92% | 0.02% | -1.20% | -0.96% | 0.04% | 0.02 | |
| 11/14/2017 | \$60.60 | \$64.58 | -6.36% | -0.26% | -3.12% | -2.29% | -4.07% | -2.36 | ** |
| 11/15/2017 | \$59.51 | \$60.60 | -1.82% | -0.49% | -1.11% | -1.20% | -0.62% | -0.36 | |
| | | | | | | | | | |
| 11/16/2017 | \$59.30 | \$59.51 | -0.35% | 0.93% | 0.04% | 0.31% | -0.66% | -0.38 | |
| 11/17/2017 | \$59.03 | \$59.30 | -0.46% | -0.09% | 1.24% | 0.45% | -0.91% | -0.53 | |
| 11/20/2017 | \$59.33 | \$59.03 | 0.51% | 0.18% | -1.12% | -0.83% | 1.34% | 0.77 | |
| 11/21/2017 | \$58.32 | \$59.33 | -1.72% | 0.66% | 0.14% | 0.21% | -1.93% | -1.12 | |
| 11/22/2017 | \$58.18 | \$58.32 | -0.24% | -0.01% | 0.83% | 0.25% | -0.49% | -0.29 | |
| 11/24/2017 | \$57.65 | \$58.18 | -0.92% | 0.22% | 0.19% | -0.01% | -0.90% | -0.52 | |
| 11/27/2017 | \$56.88 | \$57.65 | -1.34% | -0.16% | -2.25% | -1.70% | 0.36% | 0.21 | |
| 11/28/2017 | \$56.87 | \$56.88 | -0.02% | 0.88% | 0.46% | 0.53% | -0.55% | -0.32 | |
| 11/29/2017 | \$58.11 | \$56.87 | 2.16% | -0.07% | 0.62% | 0.09% | 2.07% | 1.20 | |
| 11/30/2017 | \$59.60 | \$58.11 | 2.53% | 0.72% | 1.86% | 1.29% | 1.24% | 0.72 | |
| 12/1/2017 | \$59.57 | \$59.60 | -0.05% | -0.11% | 1.53% | 0.62% | -0.67% | -0.39 | |
| 12/4/2017 | \$59.65 | \$59.57 | 0.13% | -0.17% | -1.39% | -1.19% | 1.33% | 0.77 | |
| 12/5/2017 | \$59.02 | \$59.65 | -1.06% | -0.42% | -0.73% | -0.93% | -0.13% | -0.08 | |
| 12/6/2017 | \$57.18 | \$59.02 | -3.17% | -0.14% | -2.65% | -1.94% | -1.23% | -0.71 | |
| 12/7/2017 | \$55.80 | \$57.18 | -2.44% | 0.40% | 0.83% | 0.49% | -2.93% | -1.70 | * |
| 12/8/2017 | \$56.38 | \$55.80 | 1.03% | 0.50% | 1.27% | 0.81% | 0.22% | 0.13 | |
| 12/11/2017 | \$57.13 | \$56.38 | 1.32% | 0.28% | 0.88% | 0.45% | 0.88% | 0.51 | |
| 12/12/2017 | \$55.99 | \$57.13 | -2.02% | 0.08% | -0.48% | -0.50% | -1.52% | -0.88 | |
| 12/13/2017 | \$56.81 | \$55.99 | 1.45% | 0.05% | -0.75% | -0.67% | 2.13% | 1.23 | |
| 12/14/2017 | \$56.01 | \$56.81 | -1.42% | -0.44% | -0.75% | -0.96% | -0.46% | -0.27 | |
| 12/15/2017 | \$54.71 | \$56.01 | -2.35% | 0.79% | -1.03% | -0.42% | -1.93% | -1.12 | |
| 12/18/2017 | \$55.33 | \$54.71 | 1.13% | 0.67% | 1.67% | 1.15% | -0.03% | -0.02 | |
| 12/19/2017 | \$54.42 | \$55.33 | -1.66% | -0.34% | 1.10% | 0.23% | -1.88% | -1.09 | |
| 12/20/2017 | \$54.22 | \$54.42 | -0.37% | -0.01% | 2.79% | 1.44% | -1.81% | -1.05 | |
| 12/21/2017 | \$55.42 | \$54.22 | 2.19% | 0.25% | 2.91% | 1.66% | 0.52% | 0.30 | |
| 12/22/2017 | \$54.77 | \$55.42 | -1.18% | -0.02% | 0.83% | 0.25% | -1.43% | -0.83 | |
| 12/26/2017 | \$55.45 | \$54.77 | 1.23% | -0.02% | 2.17% | 1.06% | 0.17% | 0.10 | |
| 12/27/2017 | \$55.33 | \$55.45 | -0.22% | 0.08% | -0.99% | -0.80% | 0.58% | 0.34 | |
| 12/28/2017 | \$57.26 | \$55.33 | 3.43% | 0.25% | 0.45% | 0.17% | 3.26% | 1.89 | * |
| 12/29/2017 | \$56.92 | \$57.26 | -0.60% | -0.48% | -0.61% | -0.89% | 0.29% | 0.17 | |
| 1/2/2018 | \$58.62 | \$56.92 | 2.94% | 0.85% | 1.98% | 1.44% | 1.50% | 0.17 | |
| 1/3/2018 | \$58.93 | \$58.62 | 0.53% | 0.58% | 1.23% | 0.83% | -0.31% | -0.18 | |
| 1/4/2018 | \$58.97 | \$58.93 | 0.07% | 0.40% | 0.83% | 0.49% | -0.42% | -0.18 | |
| 1/5/2018 | \$57.81 | \$58.97 | -1.99% | 0.40% | -0.03% | 0.49% | -0.4276 | -0.2 4 -1.19 | |
| | A-0 | A 04 | 4 =00/ | 0.400/ | 0.4-0/ | 0 4 40 / | | 0.83 | |
| 1/8/2018 1/9/2018 | \$58.73 \$58.70 | \$57.81 \$58.73 | 1.58% -0.05% | 0.18% 0.09% | 0.47% -0.52% | 0.14% -0.51% | 1.44% 0.46% | 0.83 | |
| | | | | | -0.32% | | | | |
| 1/10/2018 | \$57.99 | \$58.70 | -1.22% | -0.15% | | -0.47% | -0.75% | -0.44 | |
| 1/11/2018 | \$58.70 | \$57.99 | 1.22% | 0.83% | 2.95% | 2.02% | -0.80% | -0.46 | |
| 1/12/2018 | \$58.46 | \$58.70 | -0.41% | 0.61% | 0.71% | 0.53% | -0.94% | -0.55 | |
| 1/16/2018 | \$58.12 | \$58.46 | -0.58% | -0.44% | -1.88% | -1.65% | 1.06% | 0.62 | |
| 1/17/2018 | \$58.16 | \$58.12 | 0.07% | 0.85% | 0.54% | 0.57% | -0.50% | -0.29 | |
| 1/18/2018 | \$57.15 | \$58.16 | -1.75% | -0.20% | -0.58% | -0.72% | -1.04% | -0.60 | |
| 1/19/2018 | \$56.03 | \$57.15 | -1.98% | 0.54% | -0.49% | -0.24% | -1.74% | -1.01 | |
| 1/22/2018 | \$57.16 | \$56.03 | 2.00% | 0.76% | 2.73% | 1.85% | 0.15% | 0.09 | |
| 1/23/2018 | \$58.44 | \$57.16 | 2.21% | 0.26% | 0.38% | 0.13% | 2.08% | 1.21 | |
| 1/24/2018 | \$58.76 | \$58.44 | 0.55% | -0.09% | 0.36% | -0.08% | 0.63% | 0.36 | |
| 1/25/2018 | \$58.48 | \$58.76 | -0.48% | 0.01% | -1.20% | -0.98% | 0.50% | 0.29 | |
| 1/26/2018 | \$58.74 | \$58.48 | 0.44% | 0.99% | 0.44% | 0.58% | -0.14% | -0.08 | |
| 1/29/2018 | \$56.85 | \$58.74 | -3.27% | -0.69% | -1.46% | -1.53% | -1.74% | -1.01 | |
| 1/30/2018 | \$54.65 | \$56.85 | -3.95% | -1.02% | -2.69% | -2.47% | -1.48% | -0.86 | |
| 1/31/2018 | \$54.29 | \$54.65 | -0.66% | 0.02% | -0.08% | -0.29% | -0.37% | -0.22 | |
| 2/1/2018 | \$53.32 | \$54.29 | -1.80% | -0.03% | 1.10% | 0.40% | -2.21% | -1.28 | |

Exhibit-7b
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2017 through 12 November 2018

| | | EQT Prior | | | | | | | |
|----------------------|-------------------------|-------------------------|------------------------------|---------------------------------------|--------|----------------------------|---------------------------|---------------|-----|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | t-statist | tic |
| 2/2/2018 | \$51.91 | \$53.32 | -2.68% | -2.11% | -4.17% | -3.98% | 1.30% | 0.76 | |
| 2/5/2018 | \$49.27 | \$51.91 | -5.22% | -3.88% | -3.65% | -4.68% | -0.54% | -0.32 | |
| 2/6/2018 | \$49.64 | \$49.27 | 0.75% | 1.52% | 0.67% | 1.03% | -0.28% | -0.16 | |
| | | | | | | | | | |
| 2/7/2018 2/8/2018 | \$47.65 | \$49.64 | -4.09% | -0.42% | -2.24% | -1.85% | -2.24% | -1.30 1.20 | |
| | \$46.25 | \$47.65 | -2.98% | -3.53% | -4.60% | -5.06% | 2.08% | | |
| 2/9/2018 | \$45.73 | \$46.25 | -1.13% | 1.22% | -0.69% | 0.03% | -1.16% | -0.67 | |
| 2/12/2018 | \$47.77 | \$45.73 | 4.36% | 1.31% | 3.22% | 2.46% | 1.90% | 1.10 | |
| 2/13/2018 | \$47.37 | \$47.77 | -0.78% | 0.29% | -1.09% | -0.75% | -0.03% | -0.02 | |
| 2/14/2018 | \$48.51 | \$47.37 | 2.38% | 1.43% | 4.05% | 3.03% | -0.65% | -0.38 | |
| 2/15/2018 | \$53.34 | \$48.51 | 9.49% | 1.11% | -0.25% | 0.23% | 9.26% | 5.36 | *** |
| 2/16/2018 | \$52.55 | \$53.34 | -1.49% | 0.04% | -0.57% | -0.57% | -0.92% | -0.53 | |
| 2/20/2018 | \$51.40 | \$52.55 | -2.21% | -0.63% | 0.74% | -0.15% | -2.06% | -1.19 | |
| 2/21/2018 | \$49.81 | \$51.40 | -3.14% | -0.44% | -2.83% | -2.22% | -0.92% | -0.54 | |
| 2/22/2018 | \$50.82 | \$49.81 | 2.01% | 0.02% | 0.41% | 0.02% | 1.99% | 1.15 | |
| 2/23/2018 | \$52.08 | \$50.82 | 2.45% | 1.46% | 2.71% | 2.23% | 0.22% | 0.13 | |
| 2/26/2018 | \$52.50 | \$52.08 | 0.80% | 1.00% | 0.33% | 0.52% | 0.28% | 0.16 | |
| 2/27/2018 | \$51.37 | \$52.50 | -2.18% | -1.26% | -2.22% | -2.32% | 0.14% | 0.08 | |
| 2/28/2018 | \$50.31 | \$51.37 | -2.09% | -1.11% | -2.87% | -2.63% | 0.54% | 0.31 | |
| 3/1/2018 | \$50.13 | \$50.31 | -0.36% | -1.09% | 0.38% | -0.63% | 0.28% | 0.16 | |
| 3/2/2018 | \$50.32 | \$50.13 | 0.38% | 0.59% | 1.09% | 0.75% | -0.37% | -0.22 | |
| 3/5/2018 | \$51.89 | \$50.32 | 3.07% | 1.01% | 1.77% | 1.40% | 1.67% | 0.97 | |
| 3/6/2018 | \$51.82 | \$51.89 | -0.13% | 0.41% | -0.79% | -0.49% | 0.36% | 0.21 | |
| 3/7/2018 | \$51.35 | \$51.82 | -0.91% | 0.04% | -0.63% | -0.61% | -0.30% | -0.18 | |
| 3/8/2018 | \$51.07 | \$51.35 | -0.55% | 0.36% | -0.24% | -0.19% | -0.36% | -0.21 | |
| 3/9/2018 | \$52.44 | \$51.07 | 2.65% | 1.56% | 1.89% | 1.79% | 0.86% | 0.50 | |
| 3/12/2018 | \$52.20 | \$52.44 | -0.46% | -0.02% | -0.26% | -0.41% | -0.05% | -0.03 | |
| 3/13/2018 | \$52.66 | \$52.20 | 0.88% | -0.62% | -0.77% | -1.07% | 1.95% | 1.13 | |
| 3/14/2018 | \$52.45 | \$52.66 | -0.40% | -0.46% | -0.03% | -0.53% | 0.13% | 0.07 | |
| 3/15/2018 | \$49.73 | \$52.45 | -5.33% | -0.22% | -1.29% | -1.16% | -4.17% | -2.41 | ** |
| 3/16/2018 | \$50.45 | \$49.73 | 1.44% | 0.24% | 1.24% | 0.65% | 0.79% | 0.46 | |
| 3/19/2018 | \$48.64 | \$50.45 | -3.65% | -1.30% | -2.18% | -2.32% | -1.34% | -0.78 | |
| 3/20/2018 | \$48.51 | \$48.64 | -0.27% | 0.13% | 2.04% | 1.07% | -1.34% | -0.78 | |
| 3/20/2018 | \$49.54 | \$48.51 | 2.10% | 0.1376 | 4.34% | 2.41% | -0.31% | -0.77 | |
| 3/22/2018 | \$49.34 \$48.77 | \$49.54 | -1.57% | -2.42% | -1.35% | -2.45% | 0.88% | 0.51 | |
| | | \$49.34 \$48.77 | | | | | | | |
| 3/23/2018 | \$48.22 | \$48.77 \$48.22 | -1.13% | -1.95% | 0.18% | -1.25% | 0.12% | 0.07 | |
| 3/26/2018 | \$48.88 | | 1.36% | 2.40% | 1.75% | 2.18% | -0.82% | -0.48 | |
| 3/27/2018 | \$47.45 | \$48.88 | -2.97% | -1.67% | -1.93% | -2.37% | -0.59% | -0.34 | |
| 3/28/2018 | \$46.59 | \$47.45 | -1.83% | -0.26% | -2.61% | -1.98% | 0.15% | 0.09 | |
| 3/29/2018 | \$47.51 | \$46.59 | 1.96% | 1.34% | 2.61% | 2.10% | -0.14% | -0.08 | |
| 4/2/2018 | \$46.04 | \$47.51 | -3.14% | -2.16% | -3.46% | -3.58% | 0.44% | 0.25 | |
| 4/3/2018 | \$47.14 | \$46.04 | 2.36% | 1.15% | 1.94% | 1.58% | 0.78% | 0.45 | |
| 4/4/2018 | \$46.82 | \$47.14 | -0.68% | 1.03% | -0.29% | 0.16% | -0.85% | -0.49 | |
| 4/5/2018 | \$48.74 | \$46.82 | 4.02% | 0.74% | 1.90% | 1.33% | 2.69% | 1.56 | |
| 4/6/2018 | \$46.90 | \$48.74 | -3.85% | -2.02% | -2.84% | -3.13% | -0.72% | -0.42 | |
| 4/9/2018 | \$46.65 | \$46.90 | -0.53% | 0.28% | 0.51% | 0.23% | -0.76% | -0.44 | |
| 4/10/2018 | \$48.58 | \$46.65 | 4.05% | 1.63% | 4.17% | 3.22% | 0.84% | 0.49 | |
| 4/11/2018 | \$48.71 | \$48.58 | 0.27% | -0.38% | 1.75% | 0.60% | -0.33% | -0.19 | |
| 4/12/2018 | \$48.33 | \$48.71 | -0.78% | 0.69% | -0.35% | -0.07% | -0.72% | -0.42 | |
| 4/13/2018 | \$48.85 | \$48.33 | 1.07% | -0.31% | 1.75% | 0.64% | 0.43% | 0.25 | |
| 4/16/2018 | \$49.01 | \$48.85 | 0.33% | 0.80% | 0.45% | 0.48% | -0.15% | -0.09 | |
| 4/17/2018 | \$49.38 | \$49.01 | 0.75% | 1.02% | 0.46% | 0.61% | 0.14% | 0.08 | |
| 4/18/2018 | \$49.14 | \$49.38 | -0.49% | 0.16% | 2.56% | 1.40% | -1.89% | -1.09 | |
| 4/19/2018 | \$48.22 | \$49.14 | -1.89% | -0.54% | 0.08% | -0.51% | -1.38% | -0.80 | |
| 4/20/2018 | \$47.36 | \$48.22 | -1.80% | -0.75% | -0.38% | -0.90% | -0.90% | -0.52 | |
| 4/23/2018 | \$47.94 | \$47.36 | 1.22% | -0.04% | 0.70% | 0.15% | 1.07% | 0.62 | |
| | | | | | | | | | |

Exhibit-7b
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2017 through 12 November 2018

| | | EQT Prior | | | | | | | |
|----------------------|-------------------------|-------------------------|------------------------------|---------------------------------------|----------------|----------------------------|---------------------------|-----------------|------|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -stati | stic |
| 4/24/2018 | \$46.65 | \$47.94 | -2.73% | -1.14% | -1.35% | -1.72% | -1.01% | -0.59 | |
| 4/25/2018 | \$46.95 | \$46.65 | 0.64% | 0.08% | 1.19% | 0.52% | 0.12% | 0.07 | |
| 4/26/2018 | \$50.94 | \$46.95 | 8.16% | 0.90% | 0.98% | 0.86% | 7.29% | 4.23 | *** |
| 4/27/2018 | \$49.96 | \$50.94 | -1.94% | 0.07% | -1.00% | -0.81% | -1.13% | -0.65 | |
| 4/30/2018 | \$50.19 | \$49.96 | 0.46% | -0.73% | 1.07% | -0.01% | 0.47% | 0.27 | |
| 5/1/2018 | \$50.19 | \$50.19 | 0.06% | 0.22% | -0.51% | -0.43% | 0.49% | 0.27 | |
| 5/2/2018 | \$30.22 \$49.79 | \$50.19 | -0.86% | -0.56% | -0.05% | -0.43% | -0.27% | -0.15 | |
| | | \$30.22 \$49.79 | | | | | | -0.13 -2.51 | ** |
| 5/3/2018 | \$47.09 | | -5.58% | -0.23% | -1.42% | -1.24% 0.92% | -4.33% | 1.33 | |
| 5/4/2018 5/7/2018 | \$48.63 \$49.40 | \$47.09 \$48.63 | 3.22% 1.57% | 1.22% 0.41% | 0.77% 0.18% | 0.92% | 2.30% 1.47% | 0.85 | |
| 5/8/2018 | \$50.54 | \$49.40 | 2.28% | 0.41% | 1.87% | 0.10% | 1.47% | 0.83 | |
| | | | 1.38% | | | | | | |
| 5/9/2018 | \$51.24 | \$50.54 | | 0.86% | 1.84% | 1.36% | 0.01% | 0.01 | |
| 5/10/2018 | \$51.65 | \$51.24 | 0.86% | 0.86% | 0.31% | 0.43% | 0.43% | 0.25 | |
| 5/11/2018 | \$50.80 \$51.69 | \$51.65 | -1.66% | 0.15% | -0.96% | -0.74% | -0.92% | -0.53 | |
| 5/14/2018 | | \$50.80 | 1.74% | 0.08% | 0.89% | 0.34% | 1.40% | 0.81 | |
| 5/15/2018 | \$52.25 | \$51.69 | 1.08% | -0.58% | 0.69% | -0.16% | 1.24% | 0.72 | |
| 5/16/2018 | \$53.55 | \$52.25 | 2.46% | 0.48% | 0.76% | 0.49% | 1.97% | 1.14 | |
| 5/17/2018 | \$53.94 | \$53.55 | 0.73% | 0.03% | 2.49% | 1.28% | -0.56% | -0.32 | |
| 5/18/2018 | \$52.64 | \$53.94 | -2.44% | -0.22% | -0.95% | -0.96% | -1.48% | -0.86 | |
| 5/21/2018 | \$53.68 | \$52.64 | 1.96% | 0.70% | 1.41% | 1.01% | 0.95% | 0.55 | |
| 5/22/2018 | \$52.55 | \$53.68 | -2.13% | -0.35% | -2.39% | -1.90% | -0.23% | -0.13 | |
| 5/23/2018 | \$52.19 | \$52.55 | -0.69% | 0.23% | -0.67% | -0.52% | -0.16% | -0.09 | |
| 5/24/2018 | \$50.83 | \$52.19 | -2.64% | -0.18% | -1.90% | -1.50% | -1.14% | -0.66 | |
| 5/25/2018 | \$50.23 | \$50.83 | -1.19% | -0.22% | -2.59% | -1.95% | 0.76% | 0.44 | |
| 5/29/2018 | \$49.47 | \$50.23 | -1.52% | -1.00% | -0.42% | -1.07% | -0.45% | -0.26 | |
| 5/30/2018 | \$51.23 | \$49.47 | 3.50% | 1.30% | 3.36% | 2.54% | 0.96% | 0.56 | |
| 5/31/2018 | \$51.54 | \$51.23 | 0.60% | -0.65% | -1.34% | -1.43% | 2.04% | 1.18 | |
| 6/1/2018 | \$51.91 | \$51.54 | 0.72% | 0.96% | -0.24% | 0.15% | 0.56% | 0.33 | |
| 6/4/2018 | \$50.53 | \$51.91 | -2.69% | 0.45% | -1.93% | -1.16% | -1.53% | -0.89 | |
| 6/5/2018 | \$50.73 | \$50.53 | 0.40% | 0.15% | -0.66% | -0.56% | 0.96% | 0.56 | |
| 6/6/2018 | \$51.69 | \$50.73 | 1.87% | 0.79% | 0.53% | 0.53% | 1.35% | 0.78 | |
| 6/7/2018 | \$53.15 | \$51.69 | 2.79% | -0.11% | 2.28% | 1.08% | 1.71% | 0.99 | |
| 6/8/2018 | \$53.12 | \$53.15 | -0.06% | 0.30% | -0.35% | -0.29% | 0.24% | 0.14 | |
| 6/11/2018 | \$54.22 | \$53.12 | 2.05% | 0.15% | 0.73% | 0.28% | 1.77% | 1.02 | |
| 6/12/2018 | \$55.50 | \$54.22 | 2.33% | 0.19% | 0.11% | -0.07% | 2.40% | 1.39 | |
| 6/13/2018 | \$56.79 | \$55.50 | 2.30% | -0.36% | 0.05% | -0.43% | 2.72% | 1.58 | |
| 6/14/2018 | \$56.16 | \$56.79 | -1.12% | 0.26% | -1.03% | -0.72% | -0.39% | -0.23 | |
| 6/15/2018 | \$55.46 | \$56.16 | -1.25% | -0.16% | -3.02% | -2.18% | 0.92% | 0.53 | |
| 6/18/2018 | \$55.90 | \$55.46 | 0.79% | -0.07% | 2.16% | 1.03% | -0.24% | -0.14 | |
| 6/19/2018 | \$56.45 | \$55.90 | 0.98% | -0.41% | 0.32% | -0.28% | 1.26% | 0.73 | |
| 6/20/2018 | \$56.78 | \$56.45 | 0.58% | 0.27% | 2.08% | 1.17% | -0.59% | -0.34 | |
| 6/21/2018 | \$55.95 | \$56.78 | -1.47% | -0.69% | -2.43% | -2.12% | 0.65% | 0.38 | |
| 6/22/2018 | \$53.68 | \$55.95 | -4.14% | 0.23% | 3.43% | 1.97% | -6.11% | -3.54 | *** |
| 6/25/2018 | \$53.81 | \$53.68 | 0.24% | -1.45% | -2.65% | -2.69% | 2.93% | 1.70 | * |
| 6/26/2018 | \$55.05 | \$53.81 | 2.28% | 0.29% | 2.37% | 1.36% | 0.92% | 0.53 | |
| 6/27/2018 | \$54.97 | \$55.05 | -0.15% | -0.98% | 2.63% | 0.79% | -0.94% | -0.54 | |
| 6/28/2018 | \$56.24 | \$54.97 | 2.28% | 0.56% | -0.66% | -0.33% | 2.61% | 1.51 | |
| 6/29/2018 | \$55.18 | \$56.24 | -1.90% | 0.16% | 0.43% | 0.10% | -2.01% | -1.16 | |
| 7/2/2018 | \$54.45 | \$55.18 | -1.33% | 0.22% | -2.09% | -1.40% | 0.06% | 0.04 | |
| 7/3/2018 | \$54.50 | \$54.45 | 0.09% | -0.29% | 0.94% | 0.16% | -0.07% | -0.04 | |
| 7/5/2018 | \$54.97 | \$54.50 | 0.86% | 0.84% | -0.21% | 0.11% | 0.75% | 0.44 | |
| 7/6/2018 | \$55.92 | \$54.97 | 1.71% | 0.84% | 1.35% | 1.05% | 0.67% | 0.39 | |
| 7/9/2018 | \$56.89 | \$55.92 | 1.72% | 0.84% | 2.17% | 1.55% | 0.17% | 0.10 | |
| 7/10/2018 | \$56.40 | \$56.89 | -0.87% | 0.23% | 0.29% | 0.06% | -0.93% | -0.54 | |
| 7/11/2018 | \$55.81 | \$56.40 | -1.05% | -0.74% | -2.61% | -2.26% | 1.20% | 0.70 | |

Exhibit-7b
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2017 through 12 November 2018

| _ | | EQT Prior | | | | | | | |
|-----------|-------------------------|--------------------|------------------------------|---------------------------------------|------------------|----------------------------|---------------------------|-----------------|--------|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -stati | stic |
| 7/12/2018 | Ø55 22 | ¢55 01 | -1.04% | 0.82% | -0.22% | 0.09% | 1 120/ | 0.66 | |
| 7/13/2018 | \$55.23 | \$55.81 | 0.52% | 0.82% | 1.07% | 0.09% | -1.13% | -0.66 0.05 | |
| | \$55.52 | \$55.23 | | | | | 0.08% | | |
| 7/16/2018 | \$54.87 | \$55.52 | -1.18% | -0.18% | -2.03% | -1.58% | 0.41% | 0.23 | |
| 7/17/2018 | \$54.94 | \$54.87 | 0.13% | 0.39% | -0.45% | -0.30% | 0.43% | 0.25 | |
| 7/18/2018 | \$54.87 | \$54.94 | -0.13% | 0.25% | -0.07% | -0.15% | 0.02% | 0.01 | |
| 7/19/2018 | \$55.69 | \$54.87 | 1.48% | -0.25% | 0.11% | -0.32% | 1.80% | 1.04 | |
| 7/20/2018 | \$55.68 | \$55.69 | -0.02% | -0.10% | -0.40% | -0.55% | 0.53% | 0.31 | |
| 7/23/2018 | \$54.91 | \$55.68 | -1.39% | 0.10% | -0.04% | -0.22% | -1.18% | -0.68 | |
| 7/24/2018 | \$55.00 | \$54.91 | 0.16% | 0.20% | 1.70% | 0.90% | -0.74% | -0.43 | |
| 7/25/2018 | \$55.43 | \$55.00 | 0.78% | 0.82% | 0.94% | 0.79% | -0.01% | -0.01 | |
| 7/26/2018 | \$54.34 | \$55.43 | -1.99% | -0.16% | 0.19% | -0.22% | -1.76% | -1.02 | |
| 7/27/2018 | \$49.85 | \$54.34 | -8.62% | -0.77% | -1.37% | -1.52% | -7.10% | -4.12 | *** |
| 7/30/2018 | \$49.69 | \$49.85 | -0.32% | -0.56% | 1.65% | 0.44% | -0.76% | -0.44 | |
| 7/31/2018 | \$49.68 | \$49.69 | -0.02% | 0.55% | -0.26% | -0.09% | 0.07% | 0.04 | |
| 8/1/2018 | \$49.20 | \$49.68 | -0.97% | -0.13% | -2.16% | -1.63% | 0.66% | 0.38 | |
| 8/2/2018 | \$49.49 | \$49.20 | 0.59% | 0.55% | 0.35% | 0.28% | 0.31% | 0.18 | |
| 8/3/2018 | \$50.36 | \$49.49 | 1.74% | 0.33% | -2.28% | -1.45% | 3.19% | 1.85 | * |
| 8/6/2018 | \$50.50 | \$50.36 | 0.28% | 0.38% | 0.87% | 0.50% | -0.22% | -0.13 | |
| 8/7/2018 | \$51.05 | \$50.50 | 1.08% | 0.22% | -0.35% | -0.33% | 1.42% | 0.82 | |
| 8/8/2018 | \$50.56 | \$51.05 | -0.96% | -0.03% | -0.95% | -0.84% | -0.12% | -0.07 | |
| 8/9/2018 | \$49.95 | \$50.56 | -1.15% | -0.03% | -0.71% | -0.70% | -0.46% | -0.26 | |
| 8/10/2018 | \$49.81 | \$49.95 | -0.28% | -0.64% | 0.93% | -0.04% | -0.24% | -0.14 | |
| 8/13/2018 | \$49.35 | \$49.81 | -0.93% | -0.47% | -1.63% | -1.51% | 0.58% | 0.33 | |
| 8/14/2018 | \$50.36 | \$49.35 | 2.03% | 0.66% | 0.99% | 0.73% | 1.30% | 0.75 | |
| 8/15/2018 | \$49.24 | \$50.36 | -2.25% | -0.91% | -5.55% | -4.14% | 1.89% | 1.10 | |
| 8/16/2018 | \$49.85 | \$49.24 | 1.23% | 0.80% | 0.65% | 0.60% | 0.63% | 0.36 | |
| 8/17/2018 | \$49.53 | \$49.85 | -0.64% | 0.39% | -0.02% | -0.04% | -0.61% | -0.35 | |
| 8/20/2018 | \$50.00 | \$49.53 | 0.94% | 0.28% | 0.31% | 0.10% | 0.84% | 0.49 | |
| 8/21/2018 | \$51.22 | \$50.00 | 2.41% | 0.31% | 0.97% | 0.52% | 1.89% | 1.09 | |
| 8/22/2018 | \$51.67 | \$51.22 | 0.87% | 0.07% | 1.81% | 0.90% | -0.02% | -0.01 | |
| 8/23/2018 | \$51.47 | \$51.67 | -0.39% | -0.24% | -0.82% | -0.89% | 0.50% | 0.29 | |
| 8/24/2018 | \$51.15 | \$51.47 | -0.62% | 0.62% | 0.81% | 0.60% | -1.23% | -0.71 | |
| 8/27/2018 | \$50.00 | \$51.15 | -2.27% | 0.71% | 0.84% | 0.67% | -2.94% | -1.70 | * |
| 8/28/2018 | \$50.00 | \$50.00 | 0.06% | 0.00% | -0.70% | -0.67% | 0.73% | 0.42 | |
| 8/29/2018 | \$50.69 | \$50.00 | 1.31% | 0.52% | 1.08% | 0.70% | 0.61% | 0.35 | |
| 8/30/2018 | \$51.30 | \$50.69 | 1.20% | -0.45% | 0.10% | -0.44% | 1.64% | 0.95 | |
| 8/31/2018 | \$51.02 | \$51.30 | -0.55% | 0.03% | -0.66% | -0.4476 | 0.08% | 0.05 | |
| 9/4/2018 | \$49.30 | \$51.02 | | | | 4 | | | |
| 9/5/2018 | \$48.77 | \$49.30 | -3.43% -1.08% | -0.22% -0.35% | -1.47% -0.16% | -1.27% -0.54% | -2.16% -0.54% | -1.25 | |
| 9/6/2018 | \$46.77 \$46.91 | \$49.30 \$48.77 | -3.89% | -0.33% | -0.10% | -0.34% | -0.34% -1.81% | -0.31 -1.05 | |
| 9/7/2018 | \$46.56 | \$46.91 | -0.75% | -0.40% | -2.0470 | -0.80% | 0.05% | 0.03 | |
| 9/10/2018 | \$45.97 | \$46.56 | -0.73% | 0.23% | -0.05% | -0.80% | -1.13% | -0.65 | |
| 9/11/2018 | \$45.97 \$46.86 | \$40.30 \$45.97 | 1.92% | 0.23% | 1.70% | 0.97% | 0.95% | 0.55 | |
| 9/12/2018 | \$47.17 | \$45.97 \$46.86 | 0.66% | 0.32% | 0.89% | 0.34% | 0.93% | 0.33 | |
| | | | | 0.43% | | | | | |
| 9/13/2018 | \$47.79 | \$47.17 | 1.31% | | -0.23% | -0.14% | 1.45% | 0.84 | |
| 9/14/2018 | \$47.55 | \$47.79 \$47.55 | -0.50% | 0.09% | 0.62% | 0.18% | -0.68% | -0.40 | |
| 9/17/2018 | \$47.04 | \$47.55 | -1.08% | -0.60% | 0.06% | -0.55% | -0.53% | -0.31 | |
| 9/18/2018 | \$46.53 | \$47.04 | -1.09% | 0.55% | 1.84% | 1.18% | -2.27% | -1.32 | |
| 9/19/2018 | \$47.58 | \$46.53 | 2.23% | 0.05% | 1.18% | 0.50% | 1.73% | 1.00 | |
| 9/20/2018 | \$48.49 | \$47.58 | 1.89% | 0.78% | -0.89% | -0.34% | 2.24% | 1.30 | |
| 9/21/2018 | \$48.24 | \$48.49 | -0.52% | -0.10% | 0.66% | 0.10% | -0.61% | -0.36 | ale at |
| 9/24/2018 | \$46.78 | \$48.24 | -3.07% | -0.37% | 2.62% | 1.13% | -4.21% | -2.44 | ** |
| 9/25/2018 | \$46.93 | \$46.78 | 0.32% | -0.05% | 1.02% | 0.34% | -0.02% | -0.01 | |
| 9/26/2018 | \$44.44 | \$46.93 | -5.45% | -0.40% | -1.31% | -1.27% | -4.18% | -2.42 | ** |
| 9/27/2018 | \$44.71 | \$44.44 | 0.61% | 0.24% | 0.76% | 0.35% | 0.26% | 0.15 | |

Exhibit-7b
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2017 through 12 November 2018

| Date | EQT Closing Price | EQT Prior Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -stati | istic |
|------------|-------------------------|--------------------------------------|------------------------------|---------------------------------------|--------|----------------------------|---------------------------|-----------------|-------|
| 9/28/2018 | \$44.23 | \$44.71 | -1.08% | 0.01% | 0.67% | 0.16% | -1.24% | -0.72 | |
| 10/1/2018 | \$44.05 | \$44.23 | -0.41% | 0.18% | 1.77% | 0.93% | -1.34% | -0.78 | |
| 10/2/2018 | \$44.18 | \$44.05 | 0.29% | -0.23% | -0.31% | -0.56% | 0.86% | 0.50 | |
| 10/3/2018 | \$44.19 | \$44.18 | 0.02% | 0.16% | 1.58% | 0.81% | -0.78% | -0.45 | |
| 10/4/2018 | \$44.23 | \$44.19 | 0.09% | -0.94% | -1.14% | -1.47% | 1.57% | 0.91 | |
| 10/5/2018 | \$44.84 | \$44.23 | 1.37% | -0.61% | 0.16% | -0.50% | 1.87% | 1.08 | |
| 10/8/2018 | \$45.70 | \$44.84 | 1.90% | -0.13% | -0.95% | -0.90% | 2.80% | 1.62 | |
| 10/9/2018 | \$46.39 | \$45.70 | 1.50% | -0.18% | 1.79% | 0.74% | 0.76% | 0.44 | |
| 10/10/2018 | \$45.65 | \$46.39 | -1.61% | -3.18% | -5.04% | -5.13% | 3.52% | 2.04 | ** |
| 10/11/2018 | \$45.35 | \$45.65 | -0.66% | -1.90% | -3.37% | -3.38% | 2.72% | 1.58 | |
| 10/12/2018 | \$45.40 | \$45.35 | 0.11% | 1.22% | 1.00% | 1.06% | -0.95% | -0.55 | |
| 10/15/2018 | \$46.95 | \$45.40 | 3.36% | -0.37% | 0.43% | -0.19% | 3.55% | 2.06 | ** |
| 10/16/2018 | \$47.56 | \$46.95 | 1.29% | 2.12% | 0.70% | 1.39% | -0.10% | -0.06 | |
| 10/17/2018 | \$47.36 | \$47.56 | -0.42% | -0.14% | -1.80% | -1.42% | 1.00% | 0.58 | |
| 10/18/2018 | \$46.68 | \$47.36 | -1.45% | -1.47% | -1.61% | -2.07% | 0.62% | 0.36 | |
| 10/19/2018 | \$46.38 | \$46.68 | -0.64% | -0.18% | -0.45% | -0.62% | -0.02% | -0.01 | |
| 10/22/2018 | \$44.43 | \$46.38 | -4.30% | -0.39% | -1.67% | -1.48% | -2.81% | -1.63 | |
| 10/23/2018 | \$42.46 | \$44.43 | -4.54% | -0.60% | -3.58% | -2.77% | -1.77% | -1.03 | |
| 10/24/2018 | \$40.46 | \$42.46 | -4.82% | -3.11% | -5.17% | -5.16% | 0.34% | 0.19 | |
| 10/25/2018 | \$35.34 | \$40.46 | -13.53% | 1.73% | 1.34% | 1.56% | -15.08% | -8.74 | ** |
| 10/26/2018 | \$32.55 | \$35.34 | -8.22% | -1.56% | -1.12% | -1.82% | -6.41% | -3.71 | ** |
| 10/29/2018 | \$31.00 | \$32.55 | -4.88% | -0.70% | -4.09% | -3.13% | -1.75% | -1.01 | |
| 10/30/2018 | \$32.87 | \$31.00 | 5.86% | 1.55% | 2.59% | 2.21% | 3.65% | 2.11 | ** |
| 10/31/2018 | \$33.97 | \$32.87 | 3.29% | 1.04% | 0.35% | 0.56% | 2.73% | 1.58 | |
| 11/1/2018 | \$34.88 | \$33.97 | 2.64% | 1.29% | 1.15% | 1.19% | 1.46% | 0.84 | |
| 11/2/2018 | \$32.63 | \$34.88 | -6.67% | -0.48% | -2.62% | -2.12% | -4.55% | -2.64 | ** |
| 11/5/2018 | \$35.35 | \$32.63 | 8.01% | 0.44% | 2.93% | 1.78% | 6.22% | 3.60 | ** |
| 11/6/2018 | \$35.02 | \$35.35 | -0.94% | 0.57% | -0.22% | -0.06% | -0.88% | -0.51 | |
| 11/7/2018 | \$34.17 | \$35.02 | -2.46% | 1.91% | 2.99% | 2.66% | -5.11% | -2.96 | ** |
| 11/8/2018 | \$34.80 | \$34.17 | 1.83% | -0.29% | -3.24% | -2.38% | 4.21% | 2.44 | ** |
| 11/9/2018 | \$35.90 | \$34.80 | 3.11% | -0.98% | 0.77% | -0.34% | 3.45% | 2.00 | ** |
| 11/12/2018 | \$34.64 | \$35.90 | -3.57% | -1.91% | -3.76% | -3.62% | 0.04% | 0.03 | |

Notes:

[&]quot;*" indicates statistical significance at the 90% confidence level.

[&]quot;**" indicates statistical significance at the 95% confidence level.

[&]quot;***" indicates statistical significance at the 99% confidence level.

Exhibit-7c EQT Event Study Results for Market Efficiency AnalysisEstimation Period: 13 November 2018 through 17 June 2019

| - | | EQT Prior | | | | | | | |
|------------|-------------------------|--------------------|------------------------------|---------------------------------------|------------------|----------------------------|---------------------------|-----------------|------|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | <i>t</i> -stati | stic |
| 11/13/2018 | \$18.56 | \$35.90 | 1.81% | -0.12% | -0.85% | -0.50% | 2.31% | 1.14 | |
| 11/14/2018 | \$17.48 | \$18.56 | -6.00% | -0.66% | -1.40% | -0.88% | -5.11% | -2.52 | ** |
| 11/15/2018 | \$17.10 | \$17.48 | -1.61% | 1.07% | 0.50% | 0.48% | -2.10% | -1.03 | |
| 11/16/2018 | \$16.63 | \$17.40 | -3.37% | 0.21% | -0.97% | -0.67% | -2.70% | -1.33 | |
| 11/19/2018 | \$17.10 | \$17.20 | 2.79% | -1.67% | -0.06% | 0.56% | 2.23% | 1.10 | |
| 11/20/2018 | \$16.71 | \$17.10 | -2.13% | -1.81% | -4.90% | -3.83% | 1.70% | 0.84 | |
| 11/21/2018 | \$10.71 | \$17.10 | 6.26% | 0.62% | 2.35% | 2.26% | 4.00% | 1.97 | * |
| 11/23/2018 | \$17.79 | \$16.71 \$17.79 | 1.78% | | -2.83% | -2.21% | 3.99% | 1.97 | * |
| 11/26/2018 | \$18.68 | \$17.79 | 3.10% | -0.56% | | | | | · |
| | | | -0.05% | 1.45% 0.05% | -0.10% -2.12% | -0.15% -1.69% | 3.25% | 1.60 0.81 | |
| 11/27/2018 | \$18.67 | \$18.68 | | | | | 1.64% | | |
| 11/28/2018 | \$19.07 | \$18.67 | 2.12% | 2.21% | 2.13% | 1.73% | 0.39% | 0.19 | |
| 11/29/2018 | \$18.80 | \$19.07 | -1.43% | -0.18% | 0.29% | 0.55% | -1.98% | -0.98 | |
| 11/30/2018 | \$18.71 | \$18.80 | -0.48% | 0.68% | -1.36% | -1.13% | 0.65% | 0.32 | |
| 12/3/2018 | \$18.91 | \$18.71 | 1.06% | 1.14% | 2.55% | 2.33% | -1.27% | -0.63 | |
| 12/4/2018 | \$18.25 | \$18.91 | -3.55% | -3.23% | -3.47% | -2.22% | -1.33% | -0.66 | |
| 12/6/2018 | \$17.99 | \$18.25 | -1.43% | -0.19% | -3.09% | -2.52% | 1.08% | 0.53 | |
| 12/7/2018 | \$18.41 | \$17.99 | 2.31% | -2.13% | -0.18% | 0.54% | 1.76% | 0.87 | |
| 12/10/2018 | \$19.63 | \$18.41 | 6.42% | -0.02% | -2.59% | -2.10% | 8.51% | 4.20 | *** |
| 12/11/2018 | \$20.28 | \$19.63 | 3.26% | -0.07% | -0.80% | -0.46% | 3.71% | 1.83 | * |
| 12/12/2018 | \$19.99 | \$20.28 | -1.44% | 0.63% | -0.40% | -0.25% | -1.20% | -0.59 | |
| 12/13/2018 | \$20.19 | \$19.99 | 1.00% | -0.21% | -0.71% | -0.34% | 1.34% | 0.66 | |
| 12/14/2018 | \$19.40 | \$20.19 | -3.99% | -1.72% | -5.78% | -4.64% | 0.65% | 0.32 | |
| 12/17/2018 | \$18.89 | \$19.40 | -2.66% | -2.11% | -3.44% | -2.43% | -0.23% | -0.11 | |
| 12/18/2018 | \$18.87 | \$18.89 | -0.11% | -0.02% | -1.87% | -1.45% | 1.34% | 0.66 | |
| 12/19/2018 | \$18.89 | \$18.87 | 0.11% | -1.49% | -1.86% | -1.12% | 1.23% | 0.61 | |
| 12/20/2018 | \$18.55 | \$18.89 | -1.82% | -1.55% | -2.76% | -1.93% | 0.11% | 0.06 | |
| 12/21/2018 | \$18.67 | \$18.55 | 0.64% | -2.08% | -1.60% | -0.76% | 1.41% | 0.69 | |
| 12/24/2018 | \$17.59 | \$18.67 | -5.96% | -2.45% | -4.93% | -3.72% | -2.24% | -1.10 | |
| 12/26/2018 | \$19.37 | \$17.59 | 9.64% | 4.58% | 9.42% | 7.86% | 1.78% | 0.88 | |
| 12/27/2018 | \$19.83 | \$19.37 | 2.35% | 0.68% | 0.41% | 0.48% | 1.87% | 0.92 | |
| 12/28/2018 | \$19.19 | \$19.83 | -3.28% | 0.02% | -2.68% | -2.19% | -1.09% | -0.54 | |
| 12/31/2018 | \$18.89 | \$19.19 | -1.58% | 0.83% | -0.51% | -0.38% | -1.19% | -0.59 | |
| 1/2/2019 | \$19.90 | \$18.89 | 5.21% | 0.18% | 3.50% | 3.41% | 1.80% | 0.89 | |
| 1/3/2019 | \$19.32 | \$19.90 | -2.96% | -2.13% | -0.48% | 0.27% | -3.23% | -1.59 | |
| 1/4/2019 | \$19.52 | \$19.32 | 1.03% | 3.29% | 3.88% | 3.10% | -2.07% | -1.02 | |
| 1/7/2019 | \$19.74 | \$19.52 | 1.12% | 0.92% | 4.34% | 4.01% | -2.89% | -1.43 | |
| 1/8/2019 | \$20.35 | \$19.74 | 3.04% | 1.02% | 1.33% | 1.25% | 1.79% | 0.88 | |
| 1/9/2019 | \$19.96 | \$20.35 | -1.94% | 0.62% | 1.70% | 1.68% | -3.61% | -1.78 | * |
| 1/10/2019 | \$19.79 | \$19.96 | -0.86% | 0.45% | 0.90% | 0.98% | -1.84% | -0.91 | |
| 1/11/2019 | \$20.37 | \$19.79 | 2.89% | -0.02% | -0.25% | 0.03% | 2.86% | 1.41 | |
| 1/14/2019 | \$20.79 | \$20.37 | 2.04% | -0.55% | 1.22% | 1.48% | 0.56% | 0.27 | |
| 1/15/2019 | \$20.95 | \$20.79 | 0.77% | 0.98% | 1.23% | 1.17% | -0.40% | -0.20 | |
| 1/16/2019 | \$20.50 | \$20.95 | -2.17% | 0.32% | 0.42% | 0.57% | -2.74% | -1.35 | |
| 1/17/2019 | \$20.96 | \$20.50 | 2.22% | 0.71% | 0.36% | 0.44% | 1.78% | 0.88 | |
| 1/18/2019 | \$21.18 | \$20.96 | 1.04% | 1.20% | 1.92% | 1.75% | -0.70% | -0.35 | |
| 1/22/2019 | \$19.99 | \$21.18 | -5.78% | -1.43% | -3.94% | -3.03% | -2.75% | -1.36 | |
| 1/23/2019 | \$19.05 | \$19.99 | -4.82% | 0.13% | -1.58% | -1.21% | -3.61% | -1.78 | * |
| 1/24/2019 | \$18.89 | \$19.05 | -0.84% | 0.28% | 1.48% | 1.54% | -2.38% | -1.18 | |
| 1/25/2019 | \$19.97 | \$18.89 | 5.56% | 0.95% | 2.10% | 1.96% | 3.60% | 1.77 | * |
| 1/28/2019 | \$19.35 | \$19.97 | -3.15% | -0.65% | -1.33% | -0.81% | -2.34% | -1.15 | |
| 1/29/2019 | \$19.77 | \$19.35 | 2.15% | -0.09% | 0.39% | 0.63% | 1.52% | 0.75 | |
| 1/30/2019 | \$19.85 | \$19.77 | 0.40% | 1.43% | 1.67% | 1.48% | -1.07% | -0.53 | |
| 1/31/2019 | \$19.47 | \$19.85 | -1.93% | 0.84% | -2.82% | -2.49% | 0.56% | 0.27 | |
| 2/1/2019 | \$19.66 | \$19.47 | 0.97% | 0.14% | 0.42% | 0.61% | 0.36% | 0.18 | |
| 2/4/2019 | \$19.78 | \$19.66 | 0.61% | 0.67% | 0.03% | 0.14% | 0.47% | 0.23 | |
| 2 2019 | + | 4-2.00 | | ,,, | 2.30,0 | | | | |

Exhibit-7c EQT Event Study Results for Market Efficiency AnalysisEstimation Period: 13 November 2018 through 17 June 2019

| _ | | EQT Prior | | | | | | _ |
|-----------|-------------------------|-------------------------|------------------------------|---------------------------------------|----------------------|----------------------------|---------------------------|--------------|
| Date | EQT Closing Price | Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | t-statistic |
| 2/5/2019 | \$19.09 | \$19.78 | -3.55% | 0.44% | -1.69% | -1.38% | -2.17% | -1.07 |
| 2/6/2019 | \$18.68 | \$19.09 | -2.17% | -0.25% | -1.91% | -1.43% | -0.74% | -0.37 |
| 2/7/2019 | \$17.84 | \$18.68 | -4.60% | -0.89% | -4.79% | -3.92% | -0.68% | -0.33 |
| 2/8/2019 | \$17.79 | \$17.84 | -0.28% | 0.07% | -1.07% | -0.73% | 0.45% | 0.22 |
| 2/11/2019 | \$17.79 | \$17.79 | 3.26% | 0.0776 | 2.27% | 2.29% | 0.43% | 0.48 |
| 2/11/2019 | \$18.88 | \$17.79 | 2.68% | 1.23% | 1.29% | 1.17% | 1.51% | 0.75 |
| | \$19.21 | \$18.88 | 1.73% | 0.28% | 1.68% | 1.73% | 0.00% | 0.73 |
| 2/13/2019 | \$19.21 | \$18.88 | | -0.14% | 0.89% | 1.73% | | -3.12 *** |
| 2/14/2019 | | \$19.21 | -5.24% | | | | -6.33% | |
| 2/15/2019 | \$18.93 \$18.97 | \$18.20 | 3.93% 0.21% | 1.08% | 3.22% -0.50% | 2.96% | 0.98% | 0.48 0.23 |
| 2/19/2019 | | | | 0.24% | | -0.25% | 0.46% | |
| 2/20/2019 | \$19.35 | \$18.97 | 1.98% | 0.21% | 1.22% | 1.33% | 0.66% | 0.32 |
| 2/21/2019 | \$19.03 | \$19.35 | -1.67% | -0.35% | -2.67% | -2.10% | 0.43% | 0.21 |
| 2/22/2019 | \$19.31 | \$19.03 | 1.46% | 0.63% | -0.33% | -0.18% | 1.64% | 0.81 |
| 2/25/2019 | \$19.81 | \$19.31 | 2.56% | 0.14% | 1.06% | 1.20% | 1.36% | 0.67 |
| 2/26/2019 | \$19.04 | \$19.81 | -3.96% | -0.15% | -1.19% | -0.79% | -3.17% | -1.56 |
| 2/27/2019 | \$18.31 | \$19.04 | -3.91% | 0.05% | -0.17% | 0.09% | -4.00% | -1.97 * |
| 2/28/2019 | \$18.12 | \$18.31 | -1.04% | -0.28% | -0.01% | 0.31% | -1.35% | -0.67 |
| 3/1/2019 | \$19.49 | \$18.12 | 7.29% | 0.61% | 2.59% | 2.49% | 4.80% | 2.37 ** |
| 3/4/2019 | \$19.83 | \$19.49 | 1.73% | -0.42% | 1.02% | 1.28% | 0.45% | 0.22 |
| 3/5/2019 | \$19.40 | \$19.83 | -2.19% | -0.13% | -0.14% | 0.16% | -2.35% | -1.16 |
| 3/6/2019 | \$18.85 | \$19.40 | -2.88% | -0.78% | -3.06% | -2.37% | -0.51% | -0.25 |
| 3/7/2019 | \$18.87 | \$18.85 | 0.11% | -0.75% | -1.66% | -1.10% | 1.20% | 0.59 |
| 3/8/2019 | \$18.36 | \$18.87 | -2.74% | -0.19% | -3.81% | -3.17% | 0.43% | 0.21 |
| 3/11/2019 | \$18.70 | \$18.36 | 1.83% | 1.42% | 1.45% | 1.28% | 0.56% | 0.27 |
| 3/12/2019 | \$19.65 | \$18.70 | 4.96% | 0.27% | 3.11% | 3.03% | 1.93% | 0.95 |
| 3/13/2019 | \$19.64 | \$19.65 | -0.05% | 0.64% | 2.34% | 2.25% | -2.30% | -1.14 |
| 3/14/2019 | \$19.86 | \$19.64 | 1.11% | -0.10% | 0.06% | 0.33% | 0.78% | 0.39 |
| 3/15/2019 | \$19.41 | \$19.86 | -2.29% | 0.45% | -1.20% | -0.93% | -1.36% | -0.67 |
| 3/18/2019 | \$20.04 | \$19.41 | 3.19% | 0.44% | 2.45% | 2.40% | 0.80% | 0.39 |
| 3/19/2019 | \$20.05 | \$20.04 | 0.05% | -0.07% | -1.15% | -0.78% | 0.83% | 0.41 |
| 3/20/2019 | \$20.83 | \$20.05 | 3.82% | -0.31% | 2.77% | 2.85% | 0.97% | 0.48 |
| 3/21/2019 | \$20.26 | \$20.83 | -2.77% | 1.02% | 0.38% | 0.39% | -3.16% | -1.56 |
| 3/22/2019 | \$19.51 | \$20.26 | -3.77% | -2.05% | -5.12% | -3.97% | 0.20% | 0.10 |
| 3/25/2019 | \$20.00 | \$19.51 | 2.48% | -0.03% | 0.11% | 0.37% | 2.11% | 1.04 |
| 3/26/2019 | \$20.13 | \$20.00 | 0.65% | 0.77% | 2.41% | 2.28% | -1.64% | -0.81 |
| 3/27/2019 | \$20.33 | \$20.13 | 0.99% | -0.47% | -0.38% | 0.01% | 0.98% | 0.48 |
| 3/28/2019 | \$20.65 | \$20.33 | 1.56% | 0.41% | 0.74% | 0.84% | 0.72% | 0.35 |
| 3/29/2019 | \$20.74 | \$20.65 | 0.43% | 0.60% | 0.04% | 0.17% | 0.27% | 0.13 |
| 4/1/2019 | \$20.55 | \$20.74 | -0.92% | 1.12% | 0.83% | 0.78% | -1.70% | -0.84 |
| 4/2/2019 | \$20.62 | \$20.55 | 0.34% | -0.01% | -1.22% | -0.85% | 1.19% | 0.59 |
| 4/3/2019 | \$20.10 | \$20.62 | -2.55% | 0.25% | -3.71% | -3.18% | 0.63% | 0.31 |
| 4/4/2019 | \$20.89 | \$20.10 | 3.86% | 0.19% | 1.80% | 1.86% | 2.00% | 0.99 |
| 4/5/2019 | \$21.61 | \$20.89 | 3.39% | 0.51% | 3.28% | 3.13% | 0.26% | 0.13 |
| 4/8/2019 | \$21.51 | \$21.61 | -0.46% | 0.10% | 1.05% | 1.19% | -1.65% | -0.82 |
| 4/9/2019 | \$20.93 | \$21.51 | -2.73% | -0.63% | -2.21% | -1.62% | -1.11% | -0.55 |
| 4/10/2019 | \$21.06 | \$20.93 | 0.62% | 0.48% | 1.18% | 1.23% | -0.61% | -0.30 |
| 4/11/2019 | \$20.96 | \$21.06 | -0.48% | -0.01% | -1.36% | -0.98% | 0.50% | 0.25 |
| 4/12/2019 | \$21.33 | \$20.96 | 1.75% | 0.64% | 2.85% | 2.72% | -0.97% | -0.48 |
| 4/15/2019 | \$21.58 | \$20.30 | 1.17% | -0.10% | -1.39% | -0.99% | 2.15% | 1.06 |
| 4/16/2019 | \$21.73 | \$21.58 | 0.69% | 0.07% | 0.19% | 0.41% | 0.28% | 0.14 |
| 4/17/2019 | \$21.75 | \$21.73 | -2.19% | -0.31% | -1.10% | -0.68% | -1.50% | -0.74 |
| 4/18/2019 | \$21.20 | \$21.73 | -3.93% | 0.11% | -2.16% | -1.74% | -2.20% | -1.08 |
| 4/22/2019 | \$20.44 | \$21.20 | 2.94% | 0.1176 | 2.46% | 2.48% | 0.46% | 0.23 |
| 4/23/2019 | \$21.03 | \$20.44 | -0.19% | 0.89% | 0.70% | 0.70% | -0.90% | -0.44 |
| 4/24/2019 | \$20.75 | \$21.03 | -1.25% | -0.21% | -1.48% | -1.05% | -0.20% | -0.44 |
| 4/24/2019 | φ20./3 | φΔ1.01 | -1.23/0 | -0.21/0 | -1. 1 0/0 | -1.03/0 | -0.2070 | -0.10 |

Exhibit-7c
EQT Event Study Results for Market Efficiency Analysis
Estimation Period: 13 November 2018 through 17 June 2019

| Date | EQT Closing Price | EQT Prior Day Closing Price | EQT Logarithmic Return | Market Index Logarithmic Return | | EQT Explained Return | EQT Residual Return | t-statistic | |
|-----------|-------------------------|--------------------------------------|------------------------------|---------------------------------------|--------|----------------------------|---------------------------|-------------|---|
| 4/25/2019 | \$20.16 | \$20.75 | -2.88% | -0.15% | -2.13% | -1.66% | -1.23% | -0.61 | |
| 4/26/2019 | \$20.99 | \$20.16 | 4.03% | 0.54% | -0.74% | -0.53% | 4.57% | 2.25 ** | ķ |
| 4/29/2019 | \$21.07 | \$20.99 | 0.38% | 0.15% | -0.65% | -0.37% | 0.75% | 0.37 | |
| 4/30/2019 | \$20.45 | \$21.07 | -2.99% | 0.04% | -1.82% | -1.41% | -1.57% | -0.78 | |
| 5/1/2019 | \$20.08 | \$20.45 | -1.83% | -0.76% | -3.08% | -2.39% | 0.56% | 0.28 | |
| 5/2/2019 | \$19.72 | \$20.08 | -1.81% | -0.17% | -2.28% | -1.78% | -0.03% | -0.01 | |
| 5/3/2019 | \$20.38 | \$19.72 | 3.29% | 1.08% | 2.47% | 2.28% | 1.01% | 0.50 | |
| 5/6/2019 | \$20.36 | \$20.38 | -0.10% | -0.38% | 1.31% | 1.53% | -1.63% | -0.80 | |
| 5/7/2019 | \$20.69 | \$20.36 | 1.61% | -1.63% | -0.59% | 0.06% | 1.55% | 0.76 | |
| 5/8/2019 | \$20.44 | \$20.69 | -1.22% | -0.16% | 1.17% | 1.35% | -2.57% | -1.27 | |
| 5/9/2019 | \$20.45 | \$20.44 | 0.05% | -0.28% | -0.44% | -0.08% | 0.13% | 0.07 | |
| 5/10/2019 | \$21.05 | \$20.45 | 2.89% | 0.40% | -0.26% | -0.07% | 2.96% | 1.46 | |
| 5/13/2019 | \$20.86 | \$21.05 | -0.91% | -2.48% | -3.00% | -1.95% | 1.05% | 0.52 | |
| 5/14/2019 | \$21.06 | \$20.86 | 1.10% | 0.89% | 3.39% | 3.15% | -2.06% | -1.01 | |
| 5/15/2019 | \$21.54 | \$21.06 | 2.25% | 0.57% | 0.55% | 0.64% | 1.62% | 0.80 | |
| 5/16/2019 | \$21.02 | \$21.54 | -2.44% | 0.84% | 0.26% | 0.32% | -2.76% | -1.36 | |
| 5/17/2019 | \$20.81 | \$21.02 | -1.00% | -0.68% | -2.82% | -2.17% | 1.16% | 0.57 | |
| 5/20/2019 | \$20.89 | \$20.81 | 0.38% | -0.65% | -0.79% | -0.33% | 0.71% | 0.35 | |
| 5/21/2019 | \$21.45 | \$20.89 | 2.65% | 0.89% | 2.98% | 2.78% | -0.13% | -0.07 | |
| 5/22/2019 | \$19.95 | \$21.45 | -7.25% | -0.38% | -4.80% | -4.04% | -3.21% | -1.58 | |
| 5/23/2019 | \$19.57 | \$19.95 | -1.92% | -1.28% | -5.16% | -4.17% | 2.25% | 1.11 | |
| 5/24/2019 | \$19.43 | \$19.57 | -0.72% | 0.28% | -0.05% | 0.15% | -0.86% | -0.43 | |
| 5/28/2019 | \$18.88 | \$19.43 | -2.87% | -0.75% | -1.35% | -0.82% | -2.06% | -1.01 | |
| 5/29/2019 | \$18.67 | \$18.88 | -1.12% | -0.69% | 0.74% | 1.08% | -2.20% | -1.08 | |
| 5/30/2019 | \$18.26 | \$18.67 | -2.22% | 0.14% | -3.65% | -3.10% | 0.88% | 0.43 | |
| 5/31/2019 | \$18.30 | \$18.26 | 0.22% | -1.18% | -1.98% | -1.30% | 1.52% | 0.75 | |
| 6/3/2019 | \$18.42 | \$18.30 | 0.65% | -0.21% | 1.21% | 1.40% | -0.75% | -0.37 | |
| 6/4/2019 | \$18.56 | \$18.42 | 0.76% | 2.07% | 1.70% | 1.37% | -0.61% | -0.30 | |
| 6/5/2019 | \$17.83 | \$18.56 | -4.01% | 0.65% | -4.54% | -4.02% | 0.01% | 0.00 | |
| 6/6/2019 | \$18.06 | \$17.83 | 1.28% | 0.51% | 0.80% | 0.87% | 0.41% | 0.20 | |
| 6/7/2019 | \$17.69 | \$18.06 | -2.07% | 0.96% | -0.91% | -0.78% | -1.29% | -0.64 | |
| 6/10/2019 | \$17.31 | \$17.69 | -2.17% | 0.48% | -1.86% | -1.54% | -0.64% | -0.31 | |
| 6/11/2019 | \$16.66 | \$17.31 | -3.83% | -0.06% | -0.09% | 0.18% | -4.01% | -1.98 ** | k |
| 6/12/2019 | \$15.77 | \$16.66 | -5.49% | -0.19% | -4.22% | -3.55% | -1.94% | -0.96 | |
| 6/13/2019 | \$16.13 | \$15.77 | 2.26% | 0.49% | 2.62% | 2.54% | -0.28% | -0.14 | |
| 6/14/2019 | \$15.81 | \$16.13 | -2.00% | -0.27% | -2.97% | -2.39% | 0.39% | 0.19 | |
| 6/17/2019 | \$15.85 | \$15.81 | 0.25% | 0.16% | 2.00% | 2.04% | -1.79% | -0.88 | |

Notes:

[&]quot;*" indicates statistical significance at the 90% confidence level.

[&]quot;**" indicates statistical significance at the 95% confidence level.

[&]quot;***" indicates statistical significance at the 99% confidence level.